



Copenhagen Business School

Department of Social Science

Master Thesis

The Role of Corporate Social Responsibility on Sustainable Development

A Case Study of the gold mining community of Wadi Halfa municipality-Northern State-Sudan

By
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The master thesis is submitted to Copenhagen Business School in partial fulfillment of the requirements for the award of the degree of **Master in Social Science-Service Management**. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.

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1 Abstract

The thesis explores and explains Corporate Social Responsibility (CSR) and its impact on the sustainable development of people living in a gold mining community, Wadi Halfa Town of Sudan. Through observations, document analysis and conduction of interviews of the local citizens, it seeks to assess the impact of gold mining operations on various aspects of the lives of the local people. Sudan is known as a country of a lot of political problems and long-lasting civil wars with poor economic indicators. Wadi Halfa mine is over 15 years old, and the practice of mining is said to be new for the area, taking this into consideration, the lack of mining experience has led to exercises of mal practices which consequently drew the whole area into environmental problems, security instability and civil conflicts.

Various theorists and institutions, including international institutions such as the IFC, and DFID have defined sustainable development in their own context but in this thesis, the definition of sustainable development is drawn from the Rio conference; Our Common Future which defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987: 43). In another way, it could be defined as development that conserves and protects our resources. An interesting way of testing this definition is the case study of a natural resource rich (specifically gold) community.

The virtue of Corporate Social Responsibility (CSR) as the voluntary incorporation of social and environmental concerns into business conduct has established itself as an international norm. Businesses, intellectuals, local and international development agencies like the USAID have embraced this concept with the hope that it could bring about sustainable development to developing countries. Although Dosa Multi Activities Company (DMAC) - seems to uphold the concept of social responsibility, their willingness and zeal to ensure the reality of such policies are almost non-existent. CSR is best practiced when done in partnership with the local community, but in the case of DMAC, the formulation and implementation of the policies are done by the company with very little consultation with the people. Nonetheless, it expects the community to accept their stretched hand of philanthropy as a favor from them and not complain about the economic, cultural, social and environmental hazards that they have to endure as a result of the operations of the mine. Being a signatory to the Global Compact agreement and the ISO 14001, the company has tried to consistently improve their social commitment but they still have a very long way to go, if we want to see sustainable development in Wadi Halfa Town as defined by the Rio conference.

2.0 Dedication

This dissertation is dedicated to my beloved brother Mohammed Nageeb Eisa who was the deputy director for UNIDO. UNIDO Head Quarters, Vienna. Austria. He passed away in Vienna Austria on May 30th 2017 due to cancer. God bless his soul.

3.0 Acknowledgment

First I have to express my gratitude and high appreciation to my beginning and my end. Dear God, I could never have been successful on this journey without you. You protected me and kept me safe and alive during my journey through this study. Thank you dear God.

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4.0 Declaration

I hereby declare that the thesis:

The role of corporate social responsibility on sustainable development: a case study of the mining community of Wadi Halfa- Northern State-Sudan

has not been submitted to any other university or institution for any type of academic degree.

Emad A.E. Osman

Date: Signature:

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Abbreviations

DMAC	Dosa Multi Activities Company
ALRN	African Labour Research Network
BBC	British Broadcasting Corporation
CEO	Chief Executive Officer
CCC	Community Consultative Committee
CIA	Central Intelligence Agency
CSR	Corporate Social Responsibility
DUP	Democratic Unionist Party
NCP	National Congress party
NUP	National Unionist Party
SSU	Sudan Socialist Union
DCE	District Chief Executive
DFID	Department for International Development
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
ERP	Economic Recovery Program
GDP	Gross Domestic Product
HIPC	Heavily Indebted Poor Countries
IFC	International Finance Corporation
IRS	Indoor Residual Spraying
ISO	International Standard Organization
ITN	Insecticide Treated Net
MDG	Millennium Development Goals
MNC	Multinational Companies
MINO	Ministry of Information and National Orientation
NGO	Non-Governmental Organization
NCEP	National Committee for Environmental Protection

NEAC	National Environment Advocacy Committee
SD	Sustainable Development
UN	United Nations
UNEP	United Nations Environment Program
UNRISD	United Nations Research Institute for Social Development
USAID	United States Agency for International Development
USD	United States Dollars

1.0 Introduction

1.1 Background

The concept of corporate social responsibility (CSR) has a long and varied history (Carroll, 1999: 268). Corporate social responsibility (CSR) has been debated and practiced in one form or another for more than 4,000 years (Wayne Visser, 2010). “Islam has long advocated Zakat, or a wealth tax” (Wayne Visser, 2010). According to Wayne Visser (2010) the concept of CSR is not a contemporary business concept it is the way of life and CSR concept has emerged as religious backgrounds. Sudan has a long history of corporate philanthropy. Charitable activities are performed by the business communities to support various needs of the society is not a new concept in Sudan (Wayne Visser, 2010).

Mining of gold is widely known to have a large economic reward, but it also has major negative impacts on the environment and thus on the people who are occupants of these environments. A relevant question to ask is who suffers and who gains as a consequence of these environmental hazards? It is quite embarrassing to note that most of the people who are the occupants of land filled with rich resources like gold, diamond, etc are usually very poor people. It is, therefore, not out of place to expect that the mining companies which are usually multinational companies give back something to the communities that they take these riches much from in order to reduce or even compensate their losses.

In the past, many large corporations were seen to be insensitive to the needs of society and caused much of the environmental degradation of the earth, (Utting 2005). Their ‘raison d’être’ has been how to make profit and how to satisfy their shareholders as for instance argued by Milton Friedman (see Friedman, 1970). Although the situation is changing, it is imperative to wonder if the changes that are occurring have yielded expected results. In the world in which we live today, many businesses, whether big or small, try in a way to care for the needs of the society in which they operate and also put in place measures to control degradation of the environment. These actions done by the companies, whether structured or not, have been embraced by both the beneficiaries and other stakeholders in that they are seen to contribute towards the development of its beneficiaries. Thus, “the reinvigoration of the idea that businesses” not only have a motive and responsibility of making profit, but also to help solve some societal problems including socials and environmental, has provided the platform for the debate that has shaped the present path now assumed by corporate-society relationships, internationally discussed under the heading of Corporate Social Responsibility, CSR (Idemuia, 2007:1).

It has been proven through many researches that CSR, if wrongly implemented, could lead to the uneconomic use of scarce resources in an economy. However, when well formulated and implemented, CSR has been identified to be one of the most instrumental tools in ensuring the attainment of sustainable development in developing countries (Idemuia, 2007:1). By adopting social responsibility measures, the businesses in a way try to increase sustainable development of their host communities. Many theorists as well as development agencies such as DFID, USAID, and the World Bank among others have argued that CSR could be considered as a tool for the attainment of sustainable development in especially developing countries. These agencies have submitted that engaging the corporate world in development agenda is one way of achieving sustainable development (Binder, Palenberg and Witte, 2007: 11).

In order for CSR policies of mining companies to attain sustainable development, there must be collaboration with civil society in which they operate. Thus, if corporate bodies just feel a sense of responsibility towards their society and therefore make contributions to the society without involving them (society), what we will have is a development which is not community owned and therefore not sustainable.

1.2 The Research

The research has taken place in Wadi Halfa municipality, a town which is considered as the gold richest area of the country of Sudan. The town is located in the northern part of the country in the northern state. The Wadi Halfa municipality is among 7 cities in the Northern State region, it is located on the shores of Lake Nubia (the sudanese section of Lake Nasser). It is the terminus of rail line from Khartoum and the point where goods are transferred from rail to ferries going down the lake. The city has an estimated population of 15,725. The town is located amidst ancient Nubian antiquities and was the focus of much archaeological work by teams seeking to save artifacts from the flooding caused by the completion of the Aswan Dam. Wadi Halfa has a hot desert climate, typical to the Nubian Desert, in addition to this, the town receives a mean annual amount of rainfall of 0.5mm and many years usually pass without any rainfall falling to the ground. The gold mine considered for this study has existed since 2001, the mine is owned by Dosa Multi Activities Company, it is a multinational company and its headquarter is in Khartoum.

1.3 Research problem

The gold mining occupation is a very important part of the Sudanese economy today. Mining of gold is known to have some significant detrimental effects on the environment. Most mining companies use cyanide in extracting the gold and the use of this chemical could have permanent irreparable damage to the environment (Bernstein, 2004: 2). The DMAC gold mine is one of the largest gold mines in the country. Mining companies make huge profits from the mining of gold, whereas the communities where these mines are located get very little (if any) of such huge profits made. This has been the trend in many countries which have mineral deposits and the situation is no different in Sudan.

Farmers in most mining communities with special mention of the Wadi Halfa municipality have lost their source of livelihood due to the negative effects of mining. Due to the spillage of cyanide on their lands, the land no longer becomes productive for these subsistence farmers to cultivate. This is coupled with the fact that the technology being used for mining is very inefficient and as such emitting air pollutants which prevent the crops from growing properly. Wadi Halfa, a town which was once known for its importance for the export of Camels and Goats from Sudan to Egypt. The environmental hazard caused by the mine restricts the movements of Camels and other livestock and forced them to change their path to follow a longer route to Egypt. This is in addition to the environmental disturbances that are caused to the local community. Many cases of cancer diseases have been reported in the area, according to a local citizen, that he had lost a brother and a cousin due to cancer and he believes that the reason was the gold mine activities. Even though, the mining companies sometimes do come out to deny some of the allegations against them.

Most of the people of Wadi Halfa depend on livestock for their income, and therefore they depend highly on the desert trees for feeding their animals and the River Nile as a source of drinking water, but according to them, most of the Wadi Halfa area is now polluted by chemicals and the environment became quite risky for the animals to feed in the area. After losing their source of livelihood, most of these former shepherds and farmers resort to traditional mining in order to survive. According to them, it is the next lucrative job to ensure their survival. These traditional miners are constantly under the hot chase of the company. It sometimes ends up in physical confrontations between members of the community and the DMAC Company. There have been instances where the company had instructed their security guard to shoot some of these illegal miners, causing injuries to them and sometimes death.

In recent years however, many mining companies have embraced the concept of CSR and have incorporated their CSR policies among the policies of the company. Corporate Social Responsibility is a way of ensuring that businesses are “more responsive to the environmental and social concerns” of the society in which they operate (Utting, 2000). DMAC is no different as it prides itself with its CSR policies (DMAC Company, 2015). However, to what extent does their CSR Policies involve and partner with the community as stated in the 10th principle of the Rio Declaration on environment and development that environmental issues are better discussed with the involvement of the people (Adams, 2001: 84). This research will assess the impact of Dosa Multi Activities Company (DMAC) CSR policies on the livelihood of the people of Wadi Halfa Town and assess the impact of a corporate – community partnership on the development of Wadi Halfa Town.

1.4 Objectives of the study

Several multinational companies have taken over the mining of gold in Wadi Halfa; however, the concept of corporate social responsibility is particular to DMAC Company as it appears as one of the core values of the company. It is therefore interesting to look into their CSR policy and see how they have been able to apply this policy in their operations, especially when working together with the local community. The main objective of my study is to see to which degree DMAC Company has been able to apply their CSR policy in their operations in Wadi Halfa Town.

My specific research questions have been the following: 1. How does Dosa Company implement its Corporate Social Responsibility policy in Wadi Halfa Town? 2. What is the role of the local community in the design and implementation of the CSR policy of DMAC Company? 3. What are the effects of the mining activities on the livelihood of the people, for instance regarding health, economic, social and cultural lifestyle and on the natural environment?

1.5 Definition of concepts

1.5.1 Sustainable Development

During that conference in 1987, the Brundtland Commission defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987: 43). Thus, development must not be short-lived but must have long term goals.

The idea of sustainability could be classified in a threefold concept; economic, social and environmental sustainability. Thus, we must ensure economic and social growth whilst respecting the environment in which we conduct these activities. The difficulty however, has been how to ensure a balance in achieving these goals. That has always been a headache to most development stakeholders (Adams, 2001: 72). Some proponents of development argue that poverty compels people to over exploit their environment and put a lot of pressure on their environment in a bid to develop (Brundtland, 1987: 68). However, in the fourth principle of the twenty-seven principles of the Rio Declaration on Environment and Development, it is stipulate that sustainable development cannot be achieved meaningfully if it is done in “isolation of protecting the environment” (Adams, 2001: 84) as well as the pivotal role played by the indigenous people. The trick here is that the specific role to be played by the indigenous people is unclear. So should sustainability cause people to remain in their poverty?

Today, sustainable development serves as a framework under which communities can use resources efficiently, create efficient infrastructures, protect and enhance the quality of life, protect the environment and create new businesses to strengthen their economies.

1.5.2 Corporate Social Responsibility

Corporate Social Responsibility is usually defined as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (European Commission, 2001:8). The discretionary nature as incorporated in this definition makes it difficult for businesses to have a main stream policy on exactly what should be included in their CSR policies. But basically what business have done is what they ‘feel’ is right to be incorporated under their CSR policy. International Finance Corporation define CSR as “the commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development” (IFC, 2008). We acknowledge the multi stakeholder dimension of CSR, confirming that the agenda of businesses should not be skewed only towards their shareholders. CSR’s basic idea is that socially responsible behavior is in a company’s ‘enlightened self -interest’ because it will earn the company a competitive advantage with customers, investors, and employees.

1.6 Personal motivation

Personal Motivation Sustainable development has always been a concept that has fascinated me. Sometimes I wonder if we really understand and appreciate how this concept may fit into many developing countries, especially Sudan. During my life in Sudan, I have come through many things that can be considered as sustainability projects, for example that lack of drinking water and basic sanitation in the villages of Sudan have had a real impact in my life, as a result we formed a local organization called Community Development Association (CDA). The main objectives of this organization is to assist local communities around the town of Elgeneina to have access to clean drinking water and to educate them about the health consequences of lack of basic sanitations. But due to the security instability of the region of Dar Fur we had to abort our operations and leave the area.

During that time i noticed that the whole village had no sanitation facility, all the people use the open areas for urinating and stooling and this practice has it's own health consequences, but the people of that area couldn't see that as a problem.

1.7 Outline of the thesis

Chapter One of the thesis has introduced the topic of the thesis and stated the objective and research questions, and the two main concepts (CSR and SD) that run through the whole thesis. The rest of the thesis is organized as follows: Chapter two will explore the area of study for this project. It will begin with the major information about the country of study and later in the chapter the research will be narrowed to the specific area of study which is Wadi Halfa municipality. This chapter will explore the history of mining in Halfa Town. Chapter three will review some literature on the subject matter of this thesis.

The concepts of CSR and sustainable development have received extensive publicity and academic attention. And so this chapter will review some of the research works written on these concepts and I will link it to the activities of mining companies in the world as a whole and in Sudan to be specific. Chapter Four will explicate the methods adopted in conducting this research. Chapter Five will be focused on empirical findings and analysis of the findings. In chapter Six I will present the challenges I faced in conducting the research as well as my conclusions and recommendations.

2.0 Area of Study

2.1 Profile of the Sudan

Official Name: Republic of the Sudan (Jumhuriyat As-Sudan)

Commonly called Sudan (or As-Sudan in Arabic), the name derives from the Arabic Bilad As-Sudan, meaning ‘land of the black [peoples]’.

Sudan is located in north-east Africa, bordering Egypt, the Red Sea, Eritrea, Ethiopia, South Sudan, Central African Republic, Chad and Libya. Over 70% of the population of 36.1 million is ethnically Arab and, accordingly, the official language is Arabic, in addition to English. The River Nile originates in the capital Khartoum, where the White Nile and Blue Nile meet. The country is composed of a mixture of arid desert areas, swamps and tropical forests. Desertification is a serious problem in most of its 18 states (Wilayat).

Sudan is a relatively new country. Previously called Anglo-Egyptian Sudan, it gained independence from the United Kingdom and Egypt on 1 January 1956. Yet young as it is, it has a rich history. It is considered a treasure trove for archaeologists, due to the large number of prehistoric artefacts. Additionally, 225 pyramids built by the rulers of the Kingdom of Kush, the tombs of Napata and Meroe’s royal rulers, remain. The site at Meroe is the most extensive, this being the former capital of the Kingdom of Kush.

Sudan’s post-independence history has been tumultuous, characterized by multiple coups and economic woes. These were exacerbated by international tensions – and later sanctions – following the government’s decision to allow terrorist leader Osama bin Laden to reside in Khartoum in the 1990s. This highly influenced the country’s global position, and more importantly its economic development – or lack thereof. The economy has further suffered, as a result of the devastating civil wars that ravaged the country for decades.

The first civil war, from 1955 to 1972 between the Sudanese government and rebels who demanded greater autonomy for southern Sudan, left half a million people dead. The second civil war, from 1983 to 2005, was a direct result of the peace agreements signed in Addis Ababa, Ethiopia in 1972 insufficiently addressing the issues – southern self-determination, resources and the role of religion in the state – that initially sparked the violence. Some consider Sudan to have been in a continuous state of civil war from 1955 to 2005, with the period 1972-1983 regarded as a temporary ceasefire.

The second conflict between the Sudanese government and the Sudan People’s Liberation Army (SPLA), in combination with the 1983 famine, resulted in 2 million deaths and 4 million internally displaced persons (IDPs). The violence ended with the signing in Nairobi, Kenya of the Comprehensive Peace Agreement, which promised a referendum for the south after a six-year period of autonomy. This referendum was held in 2011, and with almost 99% voting for independence, the Republic of South Sudan was created. However, tensions remain between the two nations as disputes continue over oil-rich regions and the route of oil pipelines.

While the Sudanese government was fighting the SPLA in the south, two other armed groups began attacking it in the western region of Darfur. The Sudan Liberation Movement (SLM) and the Justice and Equality Movement (JEM) accused the central government of oppressing Darfur's non-Arab population. In response to the violence, the government, assisted by the Janjaweed militia, launched an ethnic cleansing campaign precisely targeting that segment of the population. This war came to a temporary stop in 2010 when the Tolu ceasefire deal was reached, but Darfur has been far from peaceful since. The International Criminal Court in The Hague has issued a warrant for the arrest of long-serving President Omar Hassan al-Bashir on ten counts of crimes against humanity, war crimes and genocide in connection with the conflict in Darfur.

With 97% of the population adhering to Islam, the Sudanese judicial system is built on sharia law, which allows practices such as stoning, flogging and crucifixion. Traces of English common law can still be found, however. Sudanese culture varies greatly between the 578 ethnic groups, with resultantly fluid identities.

Figure 1: The geographic location of Sudan



Source: World map

2.1.1 Population Density

The population density in **Sudan** was last measured at 21.57 people per square kilometer in 2014, according to the World Bank. The density varies from 2 to 3 persons per square kilometer in desert areas, to 230 in agricultural areas in the Gezira region.

Sudan, with an area of 1,886,068 square kilometers (728,215 square miles) is located in eastern Africa, with an 853-kilometre (530-mile) coastline on the Red Sea. It lies between latitudes 8° and 23°N and shares land borders with Egypt, Eritrea, Ethiopia, South **Sudan**, the Central African Republic, Chad, and Libya. Sudan's terrain is generally dry, mostly Saharan; there is a belt of flat savannah plains south of Khartoum.

The Blue Nile flows from the heights of Ethiopia across southeastern Sudan. The White Nile crosses Sudan from south to north. The two rivers meet in Khartoum, forming the main Nile, which flows north to the Mediterranean.

Most of the population of Sudan lives on the banks of the Nile river and its tributaries, and in the Gezira area, which is the fertile land located between the Blue and White Nile south of Khartoum and extending to the Ethiopian border. This area includes the largest agricultural scheme in **Sudan** and Africa, including five of the country's largest sugar-cane plantations and factories. About 17 million people (43 per cent of the total population) live in the triangle between Khartoum, Sinnar on the Blue Nile, and Kosti on the White Nile.

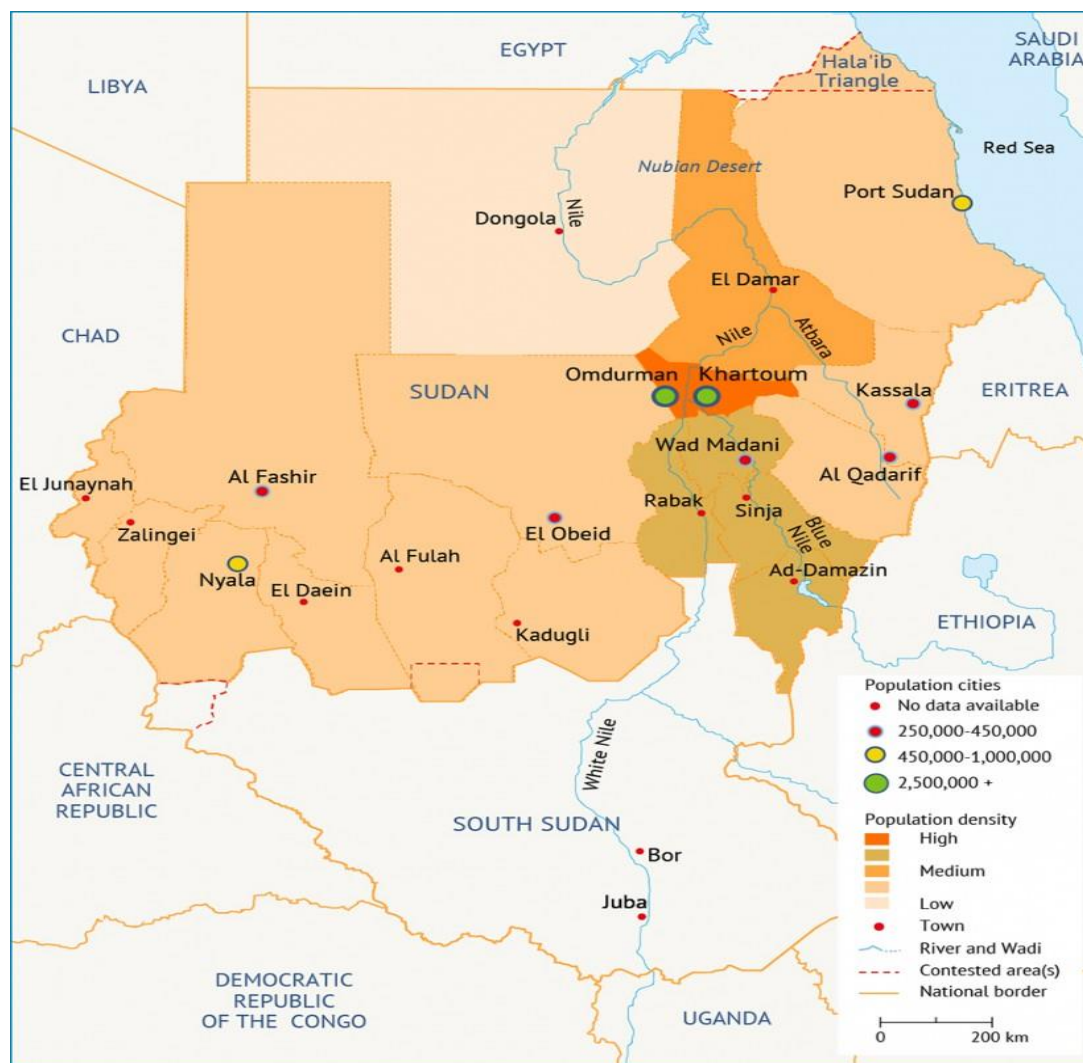
The second most populated region is Darfur, with about 7 million inhabitants living on agricultural and pastoral production. Western Darfur is an undulating plain dominated by the volcanic massif of Jabal Marrah towering 900 meters above the Sudanic plain. The rain water running off Jabal Marrah onto the plain historically supported both settled farmers and nomadic pastoral tribal groups. The outbreak of civil war in Darfur in 2003 forced millions of inhabitants of rural areas to move to internally displaced person (IDP) camps near large cities in Darfur and the rest of the country. Because of the war, the inhabitants of Nyala city in southern Darfur, soared from 100,000 in 1985 to nearly one million in 2015, making it the second largest city in the country.

The rest of Darfur, especially the northeastern parts, are desert and semi-desert, with little water from the seasonal streams known as 'wadis'. The southern parts of Darfur are rainy and green from June to October and known for its livestock production.

Kordofan, in central **Sudan**, is a sparsely populated desert and semi-desert region where animal herding and the production gum Arabic and oil-seeds are the main economic activities.

Figure 2: Sudan most populous cities and an overview of Sudan's population density.

Source: World Bank. @Fanack



2.1.2 Ethnic Groups

Sudan is a country of great ethnic and geographic diversity. According to United Nations Population Fund (UNFPA) figures, Sudanese Arabs account for about two-thirds of Sudan's population. Among them are the Kababish of northern Kordofan, a camel-raising people; the Jaalin and Shaigiyya groups of settled tribes along the rivers; the seminomadic Baggara of Kordofan and Darfur; and the Shukriya and Batahin Arabs of eastern Sudan.

The rest of the population consists of other ethnic groups; the Beja in the east, Nubians in the far north, the Fur and Zaghawa in Darfur, the Ingessana in the southern Blue Nile region, Nubas in the mountains in southern Kordofan, and other peoples. This mosaic of people is divided into nearly 600 tribes of various sizes scattered across the country and speaking 300 languages and dialects.

Some researchers and activists dispute the percentage of Arabs in Sudan, as there are political and ideological differences about who is an Arab and who is not. Many argue that speaking the Arabic language only does not make Africans into Arabs and that most of the Arabic-speaking tribes living along the Nile north of Khartoum are, in fact, Arabized Nubians

The Arab tribes of northern Sudan originally migrated to the country in the 12th century, intermarried with indigenous populations, and introduced Islam. The preeminence of the Arabic language and culture goes back to the waves of Arab migrations in the 12th century. The spread of Islam in Sudan contributed to the long process of Arabization of the people in Sudan. There are numerous local languages and (unwritten) dialects of various ethnic groups spoken in rural areas.

Arab identity and Islam were used as a basis for national unification from the Sultanate of Funj through the Mahdiya and the Anglo-Egyptian condominium. The rise of political Islam from the 1980s, the increasingly uneven distribution of development, and the marginalization of peripheral regions exacerbated the feelings of exclusion of non-Arab ethnic groups in Sudan, thus creating the present crisis of identity in Sudan.

Tribal structures are still an important social, economic and political factor in Sudan. Civil wars and ethnic and economic conflicts in the marginal areas of Sudan contributed to the upsurge in the influence of tribal factors and sustained the reemergence of tribal loyalties at the expense of the power of the central government of Sudan. Representation in the national government on tribal-ethnic grounds has been a fact of life in Sudanese politics for decades. The Sudanese Arabic dialect is the mother tongue of about 70 per cent of the population, the lingua franca of the whole country, and the main language of education and the media.

2.1.3 Political and Administrative Set Up

Since independence in 1956, The Sudan has witnessed several constitutions and regime changes, including military coups in 1985 and 1989. On seizing power in 1989, the Revolutionary Command Council (RCC) for National Salvation abolished the transitional constitution of 1985, the National Assembly, and all political parties and trade unions and ruled by decree.

Government of National Unity (GNU) - the National Congress Party (NCP) and Sudan People's Liberation Movement (SPLM) formed a power-sharing government under the 2005 Comprehensive Peace Agreement (CPA); the NCP, which came to power by military coup in 1989, is the majority partner; the agreement stipulates national elections in 2009.

All executive and legislative powers vested in Revolutionary Command Council for National Salvation (RCC-NS), fifteen-member body of military officers.

RCC-NS chairman Lieutenant General Umar Hassan Ahmad al Bashir designated president of the republic and prime minister. RCC-NS appointed members of Council of Ministers, or cabinet, governors of states, and judges of courts.

Government's authority in southern one-third of Sudan limited to several towns in which military garrisons were based. Rest of south controlled by Sudanese People's Liberation Army (SPLA).

Politics

Multiparty politics, banned after the 1989 coup, were reintroduced in 1999. The National Congress party (formerly the Islamic National Front; NIF), long the only legal party, continued to dominate the political scene in the years immediately following. Other political associations active in The Sudan include the Ummah Party (UP), the Alliance of the People's Working Forces (APWF), the Sudan People's Liberation Movement (SPLM), and the National Democratic Alliance (NDA), an association of several opposition movements.

Although RCC-NS banned all political parties in 1989, it tolerated political activity by National Islamic Front (NIF), a coalition dominated by the Muslim Brotherhood. All other parties persecuted, and their leaders had reorganized abroad or in southern areas outside government control. Opposition parties tended to be sectarian.

Omar al-Bashir took power in the June 1989 military coup against the elected government of Prime Minister Sadiq al-Mahdi. He formed a government of national unity in July 2005 as part of a deal to end Africa's longest-running civil war.

The power-sharing administration has included former rebels from the south, scene of a 21-year war which was ended with what is known as the Comprehensive Peace Agreement.

However, the main party representing the south, the Sudan People's Liberation Movement (SPLM), temporarily suspended its participation in the government in October 2007, presenting the biggest challenge to the fragile peace agreement.

The SPLM complained that key elements of the peace deal were being ignored and demanded that they be resolved by January 2008. The peace deal awarded a degree of autonomy to the south.

He dissolved parliament, banned political parties and set up and chaired the Revolutionary Command Council for National Salvation, which ruled through a civilian government.

He formed an alliance with Hassan al-Turabi, the leader of the National Islamic Front, who became the regime's ideologue and is thought to be behind the introduction of Sharia law in the north in 1991. In 1993 Mr. Bashir dissolved the Revolutionary Command for National Salvation, concentrating power in his own hands.

Mr. Bashir was elected president in 1996, and Hassan al-Turabi became speaker of parliament. A new constitution was drawn up and some opposition activity was permitted.

But in late 1999 Mr. Bashir dissolved parliament and declared a state of emergency after Mr. Turabi tried to give parliament the power to remove the president and to reinstate the post of prime minister. Hassan al-Turabi was later imprisoned, accused of treason after signing a deal with separatist rebels in the south.

President Bashir won re-election in 2000. Supporters of the National Congress Party filled the parliament. The opposition boycotted the poll, accusing Mr. Bashir of vote-rigging.

2.1.4 Administrative Divisions

In 1991 RCC-NS decreed division of Sudan into nine states. Each state further subdivided into provinces and local government areas or districts.

Civil justice is administered through the Supreme Court, appeals courts, and courts of first instance. There is also a Constitutional Court. Muslims remain subject to Islamic law, as do constituents in northern states of the country regardless of their religious belief. Southern states—with a primarily Animist-Christian population - are exempt from much, but not all, of Islamic law.

The Sudan's armed forces have been greatly expanded since 1969, mainly to cope with the continuing rebellion in the south and in Dar Fur. By the early 1980s the forces consisted of an army, a navy, and an air force. In 1990–91 the government began to establish a militia called Janjaweed, and also instituted a military draft to furnish recruits to conduct the war.

Principal Government Officials

- President, Prime Minister, and Commander in Chief of the Armed Forces - Lt. Gen. Omar Hassan Ahmed al-Bashir
- First Vice President - Salva Kiir
- Vice President - Ali Osman Muhamad Taha
- Foreign Minister - Lam Akol

Major Parties

- DUP (Democratic Unionist Party),
- NCP (National Congress party),
- NUP (National Unionist Party),
- SSU (Sudan Socialist Union)
- Ummah Party (Ummah means ‘Community of the Believers’)



Figure: 3 Sudan Emblem

Source: World Flags 101

Sudan Emblem

The current national emblem of Sudan was adopted in 1985. It shows a secretary bird bearing a shield from the time of Muhammad Ahmad, the self-proclaimed Mahdi who briefly ruled Sudan in the 19th century.

Two scrolls are placed on the arms; the upper one displays the national motto, An-Nasr lanā (النصر لنا) ("Victory is ours"), and the lower one displays the title of the state, جمهورية السودان Jumhūriyat as-Sūdān ("Republic of the Sudan").

The coat of arms is also the Presidential seal and is found in gold on the flag of the President of Sudan and on the vehicles carrying the President and at his residence.

The secretary bird was chosen as a distinctively Sudanese and indigenous variant of the "Eagle of Saladin" and "Hawk of Quraysh" seen in the emblems of some Arab states, and associated with Arab nationalism (*see Coat of arms of Egypt*).

Figure:4

Sudan Flag



Source: World Flags 101

The flag of Sudan (Arabic: علم السودان) was adopted on 20 May 1960, and consists of a horizontal red-white-black tricolour, with a green triangle at the hoist. The flag is based on the Arab Liberation Flag shared by Egypt, Iraq, Syria, and Yemen, that uses a subset of the Pan-Arab colors in which green is less significant. Prior to the 1959 military coup of Gaafar Nimeiry, a blue-yellow-green tricolor design was used. (*According to World Flags 101*)

Red, white, black and green are called the Pan-Arab colors and have been historically linked to the Arab people and Islamic religion for centuries. The colors stand for Arab unity and independence. The red stripe represents Sudan's struggle for independence and many other struggles, and the sacrifices of the country's martyrs. The white represents peace, light and optimism. It also represents the White Flag League which was a nationalist group that rose up against colonial rule in 1924. The black represents Sudan; in Arabic 'Sudan' means black. It also represents the black flag of nationalists who fought colonial rule during the Mahdist Revolution, late in 19th century. Green represents Islam, agriculture and the prosperity of the land.

2.2.0 Sudan Economy Profile

Poverty is widespread as living standards for many fall. In the formal economy, the drop in government income due to the sharp decline in revenue from oil following the secession of South Sudan in 2011 resulted in austerity measures which hit hard. Nearly half the population live on less than \$2 per day. However, the latest available Gini index (for 2009, thus describing only the situation before the split of South Sudan) puts Sudan above average – though much of the statistical data on the country is open to doubt. The UNDP HDI ranks Sudan low at 0.473. Gender inequality remains high, though while more boys than girls are in education generally, women have become far more numerous in higher education. Most of the women in higher education are from urban areas: opportunities for women at all levels are fewer in the more traditional rural areas. Many people living in rural areas are involved in the informal economy, and both desertification and floods have worsened living conditions in recent years.

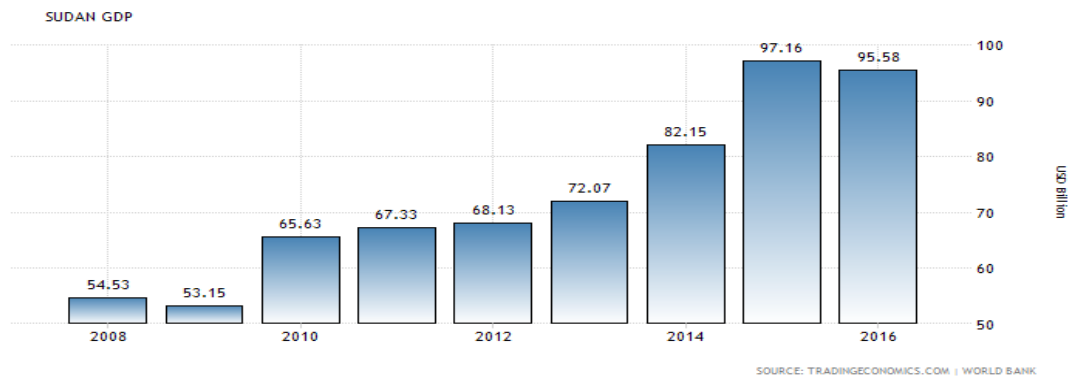
Primary resources are agricultural, including cotton, peanuts, gum Arabic, and sesame seeds. Although the country is trying to diversify its cash crops, cotton and peanuts remain its major agricultural exports. Grain sorghum (dura) is the principal food crop, and wheat is grown for domestic consumption.

Sesame seeds and peanuts are cultivated for domestic consumption and increasingly for export. Livestock production has vast potential, and many animals, particularly cows, sheep, and camels, are exported to Saudi Arabia and other Arab countries. However, Sudan remains a net importer of food. Problems of investment finance, production and transportation remain the greatest constraints to a more dynamic agricultural economy.

Sudan has 84 million hectares of arable land and less than 20% is cultivated. Major agricultural projects such as the Gezera Scheme in Gezira state are underway in order to make Sudan food self-sufficient. Sudan is one of the world's potential breadbaskets and Sudan is nicknamed as the Arab world food basket as it accounts for 45% of arable land in the Arab world.

Figure:5

Sudan GDP



Source: Tradingeconomics.com: World Bank

2.2.1 History of Gold Mining in Sudan

Since the ancient times gold was the reason behind migration. In the late nineteenth century the gold rush reached its highest level worldwide (Raymond 1999). Sudan's fame with gold dates back to prehistory as well as archeological artifacts recovered from ancient tombs. Also gold was one of the reasons of Turko-Egyptian invasion in 1820, as the country was known for its rich gold mines. Geographically, gold associated with basement complex rocks igneous metamorphic, and sedimentary origin (Whiteman 1971). The lower mantle of igneous rocks of Donite and Harzburgite contain chromium and platinum in Ingessana and Red Sea Hills, and the Nuba Mountains. Copper, Nickel, Platinum of Kambalda type associate with Gabro, Peridotite and Harzburgite rocks of Ingassana, Wadi Anir in Dar Fur and Onib area in Red Sea Hills. Also, gold associated with acid volcanic rocks of Ariab area of Red Sea Hills, the eastern part of Ingassana Hills, the Nuba Mountains, Hofrat Alnahas in Dar Fur, and eastern Wadi Halfa, and Gabgaba Wadi in northern Sudan (*Embassy of Sudan i South Africa, 2006*). Geologic studies have indicated the variability of mineral resources of Sudan, though the deposit that have been discovered so far correlates with deposits in adjacent countries renowned for great mineral wealth (*Abdelgadir 2012*).

The first gold amalgamation activities in Sudan were done by British small-scale mining companies in Red Sea Hills and Northern Sudan, when they were intermittently operating during 1904-50s (*Ibrahim 2003*). Recently, gold mining is found in 14 states of Sudan. Operations was carried out by 91 big companies and 590 small ones prospecting for gold in 106 sites (*Khartoum Journal 2013*). Work in gold mines involves the use of simple manual tools of Shovels, Pickaxes, Hammers, Chisels and Pans in both surface and underground environments (*Aryee et al 2003*).

As a result of secession of South Sudan in 2011 and loss of petroleum money which contributed 5% of the GDP, the contribution of gold to the national economy has come at the right time to save the economy from collapse. By 2014 traditional gold mining contributed about 90% of the gold mining in the country (*Sudan now 2014, African Mining Brief 2014*). However, regardless of such an economic gain, traditional mining has negative impact on the health of miners, local, and miner levels. The purpose of this paper is to investigate the socioeconomics and environmental ramifications of gold mining in Wadi Halfa and suggest measures to mitigate the negative impacts.

In September 2012, Sudanese President Omar al-Bashir opened the country's first gold refinery and it is speculated to be one of the largest such constructions in Africa. The refinery will produce more than 328 tons of gold annually. Economic analysts say that the refinery is part of government's strategy to make up for lost oil revenue after the South Sudan split of 2011.

The refinery will also be able to process silver and its opening should reduce the amount of gold and silver smuggled to other markets. According to Reuters, Sudan hopes to double its gold revenues in the year 2011 to \$3 billion. In August 2012, the finance ministry of Sudan said that the export of gold ore from Sudan would be prohibited once the refinery was opened.

3.0 Literature review and Theoretical framework

This chapter of the thesis is divided into two main parts. The first part will review some general literature on CSR and discuss the impact of gold mining on the environment and on the socio-economic lifestyle of people in mining communities. The second part will explain the theoretical framework which forms the basis of my thesis.

3.1.1 Literature Review

Bowen defined CSR as referring “to the obligation of businessmen to pursue those policies, to make those decisions, or to follow those lines of actions which are desirable in terms of the objectives and values of our society (Bowen 1953:6). Of course one can use different ethical principles to value how managers ought to act. Some have emphasized the universal nature of rights underlying CSR (reflecting a Kantian perspective), while others have suggested that businesses, like other societal actors, have to contribute to the common good of society (reflecting an Aristotelian perspective). Theories of the concept of CSR is perceived differently by different people and organizations and is noted to be “highly contextual in terms of corporate and national environment” (Broomhill, 2007: 6). Some people view that CSR should be voluntary, on the part of the businesses. Those who hold this view believe that the main essence for the existence of a business is to make profit and to please its shareholder and that the concept of CSR is a distraction towards the achievement of the primary aim of business. One of such neoliberal theorist is Milton Friedman. As he noted in the New York Times (Friedman, 1970), businesses have only one duty; to make profit and hence as long as they engage in activities that helps them to increase profits, they have not violated any rules so far as the business is not fraudulent. This is to suggest that corporate bodies had a social responsibility which is very narrow and towards only the people who are directly involved in the business and had not a single recognition of the environment or the community in which they operated. According to Idemudia (2007: 1), some critics of the CSR concept are of the opinion that it is not worth practicing CSR because it is costly. Their assertion is that companies should not invest their money on things that do not bring back any profits to the company. Steinberg (2000 cited in Zamagni, n.d: 3) in a harsh criticism of CSR argues that companies commit “prostitution” when they invest resources in social responsibility because they have swayed from their objective of profit maximization and satisfaction of its stakeholders. Unfortunately, such critics look at one side of the issue; the benefits to the company. They overlook the other side which is the external cost created by the company. In this case, mining companies create external costs that cannot be easily overlooked.

However, other theorists have a different perspective from that of the neoliberals. These were the Neo - Keynesians and they recognize the fact that sometimes the operations of businesses can have a negative impact on the environment and thus on the people living in that environment (Broomhill, 2007: 8). They embrace the concept of CSR as something that firms could look at in order to reduce certain negative impacts of their activities. On this extreme side is a group of theorist, usually known as the political economists who believe that this concept must be incorporated in the national and international codes of conduct of businesses. They have based their argument on the fact that “global corporations are seen as possessing enormous power which is often wielded ruthlessly in their own self-interest and frequently at the expense of society and the environment” (Broomhill, 2007: 8). In their opinion, CSR should be made compulsory since society is at the mercy of these powerful multinational and transnational companies.

Thus, businesses have a responsibility to respond to the concerns of the broader society in which they operate and not only the interest of their shareholders and their responsibility towards obeying law and order (Utting, 2005: 381).

Therefore, in this thesis, companies are expected to be socially responsible while preserving the profitability of the corporation for the sake of stakeholders within and outside the activities of the business.

3.1.2 The Impact of Corporate Social Responsibility: One thing that is for certainty is that there is a growing pressure on businesses to play a role in social issues and in the community that they operate within; a trend that is emerging both globally and locally (Mallen, 2008). Ideally, this pressure is not likely to stay the same but it is more strongly to increase. The desire of individuals, NGOs, the government and the society at large to get ‘something’ back from operation of companies in their communities is up surging. In the past, companies used to see social responsibility only as a voluntary but with the lapse of time, many companies, especially multinational companies, are making social responsibility as part of their corporate policies. They have embraced the concept saying that “it is simply good for our business” (Source Watch: 2007). Indeed, these companies consider their social responsibility as something important to be inculcated into their business objectives.

Although the concept of CSR is not a new one (Hopkins, 2004: 3), it is not fully embraced by everyone and a lot more people happen not to even understand this concept. The commitment of resources of corporate bodies towards social development issues has been with us for quite some time now but not everybody shared this view or celebrated this concept. Prominent amongst them is one of the world’s greatest economist; Milton Friedman. He did not believe that corporate bodies had should meddle in social affairs; neither should they have any responsibility towards the community.

As a strong activist of capitalism and a critic of CSR (Idemuia, 2007), Friedman emphasized the need to ensure that corporate bodies' managers use the monies and resources of businesses in a way that is in the interest of the businesses and nothing else (Friedman, 1970). For instance, he believes that if committing resources to reduce pollution as a 'social responsibility' of the firm would reduce the profits of the businesses in such a way that is not beneficial to the business, and then it should not be done. In his book *Capitalism and Freedom*, Friedman is said to have referred to corporate responsibility as a "fundamentally subversive doctrine". It is a wonder that theorists like Friedman and his followers believed that corporate bodies giving something back to the society that they have taken from should be considered subversive. Although Friedman's argument was strong and captured global attention, the upsurge of CSR has continued. The proponents of CSR arguing on the basis that, over the years the social cost of businesses has increases coupled with the fact that corporate bodies have gained much power and influence (Idemuia, 2007). In these contexts of market failures, it has become imperative for businesses to pay heed to social issues due to this increased vulnerability of society to the corporate entity. Again, the growth of governments' inability to fulfill their basic

responsibilities to society and to properly manage business activities and the market structures of a free market society in order to avoid over exploitation, means that the acceptance of social responsibility by the corporate world has become very inevitable and important (Idemuia, 2007, Amalric and Hauser, 2005).

Currently, in most developed countries, the debate is no longer whether it is important for corporate bodies to assimilate the concept of CSR or not, but the extent to which "CSR principles can influence corporate decisions and practices and how business can best address its social responsibilities" (Idemuia, 2007). According to the United States Social Investment Forum, over \$US1 trillion in assets are under management in the United States in socially and environmentally responsible portfolios (Hopkins, 2004: 4). This shows the increasing commitment of corporations to contribute towards various aspects of social development.

3.1.3 CSR of Dosa Multi Activities Company (DMAC)

Dosa company is a multinational company and one of the leading producers of gold in Sudan. The headquarters of the company is in Khartoum, Sudan, and it has affiliates in China. It is involved in mining and import of mining machineries, like Excavators, Crushers and Jack Hammers. It is also involved in road building activities and logistics in Sudan. it is regarded as one of the important mining companies in Sudan, because it owns some of the largest mining concessions in the country. Dosa company has two operations in Sudan; The largest is in Wadi Halfa in the Northern State, and the other is in Dar Fur State. (DMAC 2004).

In the past, DMAC operations were Road building, Import-export, Agriculture, and Logistics. (DMAC 2004).

A claim by the Executive Manager and the CSR responsible of the company is that, “CSR is a priority area to the company” (DMAC, 2004). He deems the company as one that recognizes the importance of being socially responsible towards its stakeholders including shareholders, employees, their families, the communities and the environment” in which they are located, which is Wadi Halfa municipality. The question to ask here is that, how reflective is this statement in the lives of the people of Wadi Halfa municipality. Apart from making profits for its shareholders and ensuring a safe and healthy working conditions, how committed are the policies of the company towards community development? In an interview with the manager of the department of sustainable development of DMAC, he stated that DMAC did not have much consideration to the issues of CSR and sustainable development in the past. However, after the company started investing in the gold mining sector, the matter became a must, and therefore they have established their sustainability department.

Malaria is one of the number one killer diseases in Sudan and the company’s commitment towards reducing the incidence of Malaria shows a level of commitment towards the welfare of the people. It is interesting to find out how sustainable such initiatives and whether the methods adopted in reducing the malaria incidence is appropriate.

Also, according to the company, other priority areas is to keep and sustain the environment in which they work and make it remain ecologically sound and sustainable, provide employment and improve living standards in the community. It hopes to ensure that “the communities in which they operate derive real social and economic benefits from their presence in that community” (DMAC 2018). Although, it would be “ludicrous and unnecessarily restrictive” to expect DMAC to be solely responsible and involved in every social development aspect of Wadi Halfa municipality, we hope to see an appreciable level of commitment from the company (Hopkins, 2004: 3).

3.1.4 The Impact of Gold mining on Communities

Many African countries are going through a phase of difficult economic conditions and a high rate of unemployment and poverty in their communities. Over the years’ artisanal gold mining has been a source of income generation of many communities. A recent boom in mining is stirring in different parts of the continent where the prospect of mineral resources has already been announced. This is encouraged by governmental authorities and large mining companies, so as to fill the gap in the economy deficit and involve the unemployed. In some areas people holding essential jobs are leaving, attracted by the gold glitter and wealth. Although mining, especially gold mining can be a good source of economic income, the malpractice in the process conducted can be damaging to the environment, surface and ground water resources and health of the untrained miners and communities. Careless use of chemicals, especially mercury, and disposal of polluted water, can threaten the available water resources and the food chain. During the rainy seasons, this polluted water contaminates fresh water sources, mainly rivers and underground sources, and consequently, the socio-economic and

health effects can be disastrous. Moreover, destruction of fertile graze lands, where disorganized digging is operated, can be devastating for the fragile agricultural environment.

Gold mining like other extractive minerals has several methods for its extraction. Whilst each of these methods affects the environment and the community, the extent of impact may differ among the method adopted. In this study, we will look at the impact of deep subsurface and open cast mining. Subsurface mining entails the removal of top soil including everything (including trees, buildings, homes, roads, etc) that is on the soil over a large tract of land. This type of mining can cause damage to personal properties such as homes, farms, roads and hospitals to name a few. This is the method that is predominantly used by DMAC. Open cast mining is a method of extraction whereby underground shafts are sunk and are mainly supported by timber and other types of strong woods such as teak. The difference between the two methods lies in the fact that whereas the subsurface mining entails the removal of mainly top soils which means mass destruction of everything on that land, the open cast mining “has fewer positive spin-offs like road building, home construction, health clinics, etc” (ALRN, 2005). However, it has a huge effect on groundwater, as the level has to be lowered below that of the pit, affecting wells and ecosystems over a huge area.

The Environmental Impact



Figure 6: Smoke rises after a blast in a quarry at the Ariab mine in eastern Sudan's Red Sea state, the largest single gold mining operation, run by the Sudanese government in partnership with Canada's La Mancha (Mohamed Nureldin Abdallah/Reuters)

The Environmental Impact:

Dirty gold mining often leads to a persistent problem known as acid mine drainage. The problem results when underground rock disturbed by mining is newly exposed to air and water. Iron sulfides (often called “fool’s gold”) in the rock can react with oxygen to form sulfuric acid. Acidic water draining from mine sites can be 20 to 300 times more concentrated than acid rain, and it is toxic to living organisms. Modern industrial gold mining destroys landscapes and creates huge amounts of toxic waste. Due to the use of dirty practices such as open pit mining and cyanide heap leaching, mining companies generate about 20 tons of toxic waste for every 0.333-ounce gold ring (*Brilliant Earth*). The waste, usually a gray liquid sludge, is laden with deadly cyanide and toxic heavy metals.

The removal of gold ore for extraction disturbs the ecosystem of that area and even the surrounding areas as well (ALRN, 2005: 8). The removal of the top soil reduces the vegetation in the area and other biological lives which may be present in the place. The biodiversity will change completely as well as the rainfall pattern of the area. Over time, the least one would expect is climate change which contributes to global warming. The use of cyanide to extract the gold from the ore can be hazardous to both the land and the water bodies when these chemicals are discharged wrongly after use or when they spill. The chemical destroys streams, rivers and other source of water bodies thereby contaminating it. Such water source may be what the villagers drink; the consequences of such are just as numerous. According to the African Labour Research Network (2005: 8), the mining and processing of gold creates heaps of “toxic waste because of the nature and quantities of chemicals used in processing gold. It produces noise and dust, which can also be toxic and radioactive”. Farmers in mining communities also lose their crops and the fertility of their land to mining activities. Apart from the spillage of cyanide, smoke from the mines can also destroy crops and bring about certain diseases to the inhabitants of the area such as lung diseases and other forms of cancer.

Environmental Impact:

- Water use and water pollution, often in water-scarce situations
- Energy intensity. Where coal is the main source, as in South Africa, it has climate change knock-on effects
- Waste in huge volumes, some of it highly toxic or Surface disturbance of vegetation and failure to meet rehabilitation requirements
- Geological disturbance like sinkholes and seismic movements or The effects of acid mine drainage, including the liberating of heavy metals
- The use of chemicals like mercury and cyanide contaminating water and the land
- Uranium and radioactivity coming from uranium in tailings and scrap metal contaminated by uranium plants or Dust leading to health problems like silicosis.

All the above into consideration, Sudan is not an exceptional case. According to some Sudanese officials, the country is moving towards a huge environmental disaster as a result of gold mining.

The pollution caused by the use of cyanide and mercury in gold mining “constitutes the largest and most dangerous threat to the country’s environment”, says a Sudanese environment protection expert.

“The use of cyanide and mercury will definitely lead to an environmental disaster in the country,” According to Mr El Jeili Hamouda Saleh, Professor of Environmental Law at the Bahri University in Khartoum and legal advisor of the National Committee for Environmental Protection (NCEP) said in an interview with Radio Dabanga.

According to Dr Saleh, there are more than 40,000 gold mining sites in Sudan. About 60 gold processing companies are operating in 13 states of the country, 15 of them in South Kordofan.

He explained that the legal responsibility for gold mining and its procedures rests on the state, that is represented by the Sudanese Mining Company. “Currently this authority mainly issues permits to the gold mining companies through state and local offices.”

Khartoum must provide protection to the people and the environment in the country “by implementing the relevant international agreements, especially concerning the obligation of companies, factories, and individuals to obtain an environmental impact certificate and to adhere to safety procedures for workers and the environment.

“The international community has approved these measures. However, a number of countries, including Sudan, are violating the agreements and continue to spoil the environment,” the professor said.

According to Dr Saleh, the National Environmental Advocacy Committee (NEAC) has received complaints from people living in various places in South Kordofan, the area of Sodari in North Kordofan, El Sawadra in Northern State, and from other parts of Sudan.

“The Committee is now filing criminal cases against all 15 gold mining companies operating in South Kordofan, in order to compensate the people there for the negative effects on their health caused by these companies, and to oblige them to pay for decontamination of the areas,” Dr Saleh reported.

He expressed his concern about the silence of the Sudanese government with regard to the protection of the environment. “In many cases, government officials are even helping these companies to violate the law.”

He pointed to the 2005 Interim Constitution of Sudan “that grants all Sudanese the right to live in a clean environment.



Worker in an informal mining area in Northern Sudan, Photo by Amin Ziada

Abdullah Idris Isaac's Story

It's a little before 7am on a bright, airless morning, and already Abdullah Idriss Isaac has been hard at work for hours.

Swishing his aluminium pan back and forth through a waist-deep pool of brackish water, he wearily scrutinises its contents for glimmers of gold. With the sun beginning to beat down, the young miner splashes handfuls of the liquid – laced with mercury and cyanide to separate gold from unwanted rock – on his face to stay alert.

Around him is a scene like something out of Mad Max. Overseers set truck tyres alight to soften ground that's been baked solid by the fierce Sahara sun. As the flames relent, newly arrived workers step in to blast away chunks of the weakened turf with homemade explosives. A series of muffled bangs ring out across the desert encampment. "Watch out!" the miners shout at one another.

Amid the chaotic pall of chemical fumes, Isaac sticks to his duties as a gold "cleaner". Since fleeing his home city of Nyala in western Sudan's war-torn Darfur region, he has scrimped tirelessly to try to repay the cost of his tools and turn a profit.

Now, this sparsely populated hinterland to the south of the Egyptian border is beginning to show promise. He says the terrible conditions will not dash his dreams of striking it rich. "There's no work elsewhere, so what choice do I have anyway?" he says. "It's this or nothing."

Socio-economic Impacts

Gold mining companies are a major source of income and economic growth, with an important role in supporting sustainable socio-economic development. During 2013, gold mining contributed over US\$ 171.6bn to the global economy through their production activities and expenditure on goods and services (*World Gold Council*).

Mining communities enjoy certain facilities such as electricity, construction of good roads and other social and economic amenities. However, these facilities may not be in the quantity and quality that is expected. One cannot overlook the negative social impact of mining. Usually, the land earmarked for the mining are sold out by top government officials with very little or no involvement of the local people. Some parts of the land may be considered sacred and special to the people but due the mining and processing of gold in the area, the local people will be forced out of the land. Again, mining companies use large amounts of water and energy (ALRN, 2005: 8), thereby exerting pressure on the already strained water, land and energy resources. Although the existence of the mining company in the community will create jobs by employing some of the local people and improving their standard of living, the level of poverty in mining companies are nothing to write home about. The worst part comes when the mine is closed down. Economic activities in the community melts down, as people who were employed in the mining company lose their jobs and other subsidiary jobs (which may be providing goods and services to the company) to the company are likely to face a collapse of their business. Farmers sometimes lose their land or get experience a drastic reduction in their farm output due to land, water or air pollution from the gold mine. The government may pass certain laws which would prohibit the local communities from accessing any natural resource which may be the concession of the mining company. In Ghana, environmental policies tend to still be in its formative years and it only became more popularly implemented after the Rio conference (Boon and Hens, n.d). Also as a result of the destruction of farm lands, farmers tend to lose their job and they are not always appropriately compensated. Such incidents have dragged many able farmers into galamsey - small scale mining (Oxfam America, 2006).

Gold mining can impact local communities both positively and negatively. While positive impacts such as employment and community development projects are important, they do not off-set the potential negatives.

Mining negatively affects people by:

- Forcing them from their homes and land
- Preventing them from accessing clean land and water
- Impacting on their health and livelihoods
- Creating divisions in communities over who benefits from the mine and who doesn't

- Changing the social dynamics of a community
- Exposing them to harassment by mine or government security
- Uneven gender impact, where women shoulder the burden of externalized costs through loss of natural resources, and stress on the social system, while excluded from most of the benefits
- The legacy of more than a century and a failure of those who profited from mining to take responsibility for the present day consequences that communities live with around abandoned and “ownerless” mines
- The legacy of more than a century and a failure of those who profited from mining to take responsibility for the present day consequences that communities live with around abandoned and “ownerless” mines.

Source: (Oxfam America, 2006)

Cultural Impact of Gold Mining

Mining also has an effect on the culture of the indigenous people in the community. The presence of mining companies and the removal of forest regions sometimes interfere with the rich culture of the people living in the community especially when they are in a way attached to the natural settings of that area being cleared. As was stated in the Agenda 21, chapter 26, “indigenous people and their communities have a historical relationship with their lands and are generally descendants of the original inhabitants of such lands”. In another sense, any interference with the natural settings of a community can have an adverse effect on their history and their culture as a people. The document explained “lands” to include the environment of the areas which the people concerned are traditionally occupants.

Closely related to the issue of culture is the adverse effect of mining on the human rights of people living in the communities. In the case of Sudan, some local people have lost their homes, farm lands and other properties to mining companies without adequate compensation. After all, what compensation can be adequate to being evacuated from the land you have grown to love and be used to. Many times, there have been conflicts generated as a result of relocation exercises, and in some cases people have even lost their lives. Also, people who are considered as encroachers on the concession lands of mining companies have suffered various degrees of consequences including being shot and injured. In my opinion, these are violations of the rights of the people who have been kind enough to host these mining companies in their communities and that is the least treatment that they deserve. In agreement to a statement made by CMI, I believe that “a company that cannot operate without contributing to human rights violations should actually stay out” (CMI, 2007).

Figure:7

Photo by witness: A man got shot by Russian mining company security in dispute over mining concession in Wadi

Halfa. -Sudan. Source: Sudanese (union what's App group, posted by Magdi El Gazooli on 08/03/2018)





Figure:8

Photo by witness: A man got shot by Russian mining company security in dispute over mining concession in Wadi Halfa. -Sudan. Source: Sudanese (union what's App group, posted by Magdi El Gazooli on 08/03/2018)

3.1.5 Controlling the Environmental Impacts of gold mining:

The role of EIA “Environmental Impact Assessment (EIA) is a process for taking account of the potential environmental consequences of a proposed action during the planning, design, decision-making and implementation stages of that action” (Morrison-Saunders 2004:1). The EIA process also takes into consideration the socio-economic impacts of such proposed course of action (UNEP 2004: 4). Mining companies in Ghana are required to produce Environmental Impact Assessments, the implementation of which the Environmental Protection Agency (EPA) is supposed to ensure. The AGA has signed up the UN Global Compact and ISO 14001 environmental certification scheme (head of environmental department, AGA, 2009) which also requires that the company practices its mining activities in an environmentally sustainable way and thereby conduct an EIA before they embark on

any mining activity in an area. However, the EPA has been very weak in ensuring that mining companies conduct EIA before undertaking their mining activities. Since the laws backing them are weak and the system of checks is porous, it becomes very difficult to punish defaulters of EIA initiatives.

3.2 Theoretical Framework

The theoretical framework on which this thesis is based shows a posture of development that is people centered or bottom to top kind of development. Using CSR as one of the tools to attain sustainable development is not enough if the formulation and implementation of the policies does not involve the recipients of such developments. Although governments, especially in developing countries, continue to play a major role in addressing the development needs of their citizens, “the promotion of social development issues must also be one of partnership between government and private and non-governmental actors and, in particular, the corporate sector” (Hopkins, 2004: 4). In developing countries where governments are usually unaccountable and inefficient, CSR would offer itself as an alternative tool to bring about sustainable development. According to a report by the St. James Ethic Centre, “Corporate responsibility is achieved when businesses adapts all of its practices to ensure that it operates in ways that meet, or exceed, the ethical, legal, commercial and public expectations that society has of business”. In other words, businesses must incorporate the policies of CSR in their daily operations and not leave it as something that the businesses choose to do at any time convenient. Unlike what was popularized by the World Commission on Environment and Development, the sustainable development concept does not comprise only the environment, but instead, it consists of activities that care for the needs of society and the people living in it thereof (WCED, 1987 cited in Murphy and Bendell, 1999). The scope of definition goes beyond just the natural environment but more importantly, it encompasses the social environment.

3.2.1 Defining Sustainable Development

Sustainable development (SD), a term codified for the first time in the World Conservation Strategy, has become a common cliché for most political and corporate leaders. This phrase has got several meanings and explanations but the most dominant of these explanations is what emerged in the Brundtland report in 1987. During a meeting by the World Commission on Environment and Development, “Our Common Future”, sustainable development was defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987: 43). This term, sustainable development is the main theme that runs through the entire Millennium Development Goals (MDGs). For example, MDG 1 seeks to eradicate extreme poverty and hunger from developing countries by the year 2015. MDG 3 is to promote gender equality and MDG 7 is about ensuring environmental sustainability, all to be achieved by the year 2015 (UN, 2008). In all we can see that the theme that runs through the meaning of sustainable development coming out even in the three MDGs stated earlier, thus, economic, social, cultural and environmental sustainability are all embedded and very important

to one of the most important documents currently for most developing countries. Now, the difficulty is not in seeing these principles being documented, the real question is how do we ensure economic, social, cultural and environmental sustainability in poverty stricken areas in the world? This is where, Corporate Social responsibility comes in. Corporate social responsibility could be said to be one of important factors which can help developing countries achieve sustainable development. As we will see in the next section that corporate social responsibility also borders around similar themes.

3.2.2. Defining CSR and its relation to Sustainable Development

CSR is viewed as a social construction and, as such, it is not possible to develop an unbiased definition (Dahlsrud, 2006:2). There have been several definitions of CSR that has been documented and the trend has been that companies or institutions define it in a way that suits their purpose. However, in line with my research, I have identified two definitions which will be useful for the purposes of my research work. The first definitions that I find interesting is by the International Finance Corporation and they defined CSR as “the commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development” (IFC, 2008). We acknowledge the multi stakeholder dimension of CSR, confirming that the agenda of businesses should not be skewed only towards their shareholders.

According to Carroll (1999: 283), “the social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time”. This definition lays emphasis on the fact that at any particular point in time, society is expecting businesses to be responsible in a way that they have to and as such, as time and conditions changes, they expect businesses to also change their responsibility towards them. These definitions above will form the basis for my theoretical framework for the analysis of my data.

3.2.3 CSR and Corporate-Community Partnership and

In recent years, most people have come to the recognition that it is no longer an “if” but rather of “how” CSR can be implemented, i.e. the question is no longer if CSR should be implemented but rather, how CSR can be efficiently implemented (Ruggie, cited in Economist, 2008). As a result, it has become important to critically assess the approaches by which CSR could be implemented in a way that can benefit corporate bodies as well as the society at large. Literature and empirical evidence has shown that a partnership between business corporations and the community in which they operate has been quite fruitful. Lack of partnership coupled with inadequate consultations in the implementation of CSR policies could have detrimental and unsustainable effects

on the community. One way to effectively implement CSR is through a partnership between corporate bodies and the community concerned. This approach when well-done has the potential of ensuring sustainability of projects and the community having a sense of ownership of products done by the business organization. It is important to recognize that the road to the implementation of corporate-community partnership is not all roses. Idemudia (Uwafiokun, 2007) describes the relationship as “fragile” and advocates for exploration of problems that usually ensue between the corporate bodies and the community. In all, partnership can have a positive impact on improving sustainable development but it must be handled with much care.

4.0 Methodology:

In order to conduct a social research, consideration must be paid to the choice of the appropriate method to be adopted for the research. There are several ways of conducting research and researchers choose the appropriate method based on what they want to achieve and other factors which influences the outcome of the research. This chapter of the thesis is divided into three parts. In the first part, we shall discuss the factors which influence researchers' choice of research strategy and methodology as well as the specific considerations which informed my choice of research strategy. The second part discusses the different strategies of conducting social research. In this vein, we shall have a look at quantitative and qualitative research strategies, and the distinguishing features between them. As part of research strategies, we shall discuss the not-so-popular action research strategy. The last section shall take us through how this research was conducted and the challenges involved in using these methods.

4.1 Considerations for conducting social research

Various factors need to be considered when conducting a social research. Some of these factors include the relationship between theory and research, epistemological, ontological and practical considerations as well as the values of the researcher (Bryman, 2004: 21). One or a combination of any or all of these factors could impinge the conduct of social research. It is important to take a look at some of these factors as they possess the ability to have a huge impact on the research and sometimes determine the outcome of the research. The figure 8 below shows the various factors that researcher have to consider when conducting a social research study.

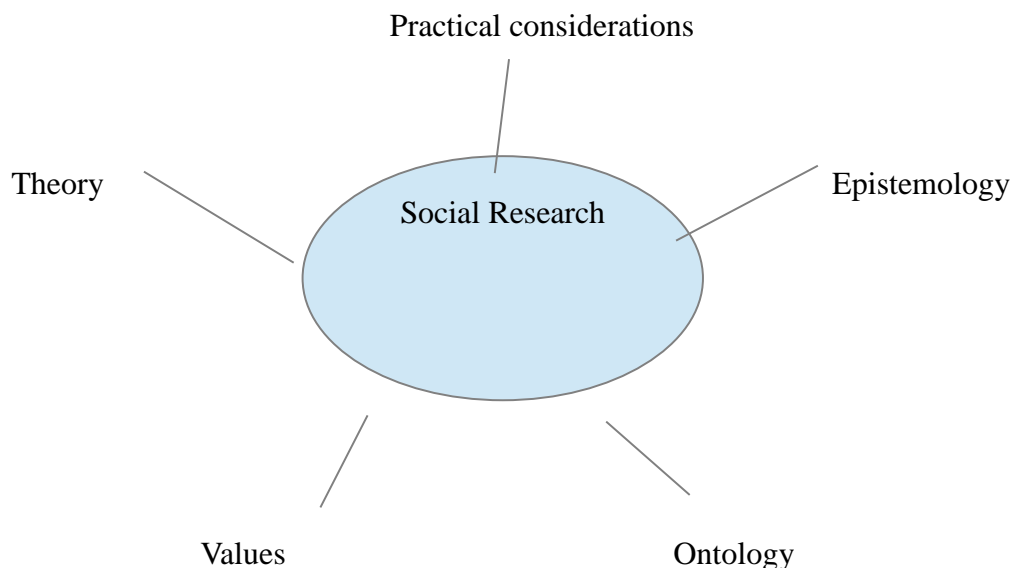


Figure 9: Diagram showing things to consider when conducting social research

Source: Bryman (2004)

4.1.1 Consideration of researcher's values

In conducting a research in the social sciences, values refer to the “personal beliefs” or impressions of the researcher (Bryman, 2004: 21). Different researchers have different impressions about the conduct of a particular study and it is largely expected that the conduct of a study is not subjective but rather objective. However, in the growing recognition of the values of researchers, it has become acceptable to create room for a certain level of subjectivity in social research. Researchers would have to acknowledge that it is possible for the personal beliefs of the researcher to have an impact on the study and still remain a credible study once the researcher has been able to put these feelings in check.

4.1.2 Theoretical considerations

Researchers must consider the impact of theory when conducting a study. Although it is an easy and straightforward matter for researchers, its consideration and impact cannot be overlooked. There is a strong correlation between theory and research which needs to be considered. Theoretical considerations could be either inductive or deductive (Bryman, 2004: 8). With the deductive approach to theory, the researcher or social scientist must come up with a hypothesis which will be subjected to empirical proof and a possible modification of the theory which was already in place (Bryman 2004: 8). However, with an inductive stance, the researcher would have to conduct his own observations without any hypothesis but then at the end of the research, he will formulate a theory based on his observations. In other words, theory is essential in the sense that, depending on what the researcher has in mind, he will adopt the appropriate strategy. If using a deductive approach, the structure will look differently as from using inductive theory (Sein 2007). Depending on what topic one wants to do research about, the fact that is that to some extent different variables will influence the result.

4.1.3 Epistemological considerations

Epistemology is the study of knowledge. Epistemologists concern themselves with a number of tasks, which we might sort into two categories.

First we must determine the nature of knowledge; that is, what does it mean to say that someone knows, or fails to know, something?

Second, we must determine the extent of human knowledge; that is, how much do we, or can we know?

Epistemology is an important tool that social researchers have to look out for in epistemological considerations. Epistemology is concerned with knowledge generation/construction from the “relationship between knower and what can be known”. It also explains theories on how to get knowledge about the world (Ryen, 2008). Epistemology raises such important questions as whether social problems can

be handled by using the same rigorous procedures which are applied in the natural sciences and whether such procedures may fit well into the study of a social phenomenon. Usually the epistemological consideration is looked at with two distinct perspectives; natural science epistemology-positivism and interpretivism (Bryman, 2004: 11). Proponents of the natural science epistemology hold that the canons that are utilized in the physical sciences can be applied to the study of society. On the other hand, is the interpretivist stance which advocates the fashioning out of a set of procedures that are applicable in the study of social phenomena and not necessarily follow the natural science model. It is important for the social researcher therefore to consider carefully how he intends to generate the information required for his research.

4.1.4 Ontological considerations

In general, ontology is the study or concern about what kind of things exist-what entities there are in the universe. It derives from the Greek *onto* (being) and *logia* (written or spoken discourse).

A researcher will also have to contend with issues of ontology. Ontology in particular addresses issues like “what is reality out there, what reality consists of and how is it perceived and what there is to know about that reality” (Ryen, 2008). Objectivism and constructionism are the two ontological positions. Objectivism “implies that social phenomena may confront us as external facts that are beyond our reach or influence”, while constructionism is based on realism and points out that social phenomena can be handled and accomplished by social actors, and that individuals create their own reality (Bryman, 2004, p. 16-18). To the extent that a researcher will need to understand what reality is before he pursues it by conducting a social research, ontological considerations are very important.

4.1.5 Practical considerations

According to Bryman (2004: 23), practical issues have to be taken into consideration when conducting a social research. Apart from the philosophical issues of epistemology, ontology and axiology, there are also practical issues that may have such significance and importance on the outcome of the research that they may be difficult to ignore. For instance, a researcher will have to take into account the research questions in order to determine the right research strategy, design or method to use. A researcher will also have to take cognizance of the topic and the people or social phenomena being investigated. The availability of data or information on a particular topic is also crucial in determining what type of method that may be relevant. If no research has been done on a particular topic, it will kind of influence a researcher’s decision to adopt either a qualitative or quantitative research as it is extremely tedious to conduct a quantitative study in such a case (Bryman, 2004: 23). These and such considerations are very crucial for the conduct of a social research and it is very important that a researcher takes all of them into consideration.

4.2 Research strategy

There are several strategies that researchers could adopt in their research. However, the most utilized and widely explored are the quantitative and qualitative research strategies. Another strategy which is not so popular is the action research. Whereas quantitative and qualitative strategies are more explanatory and exploratory, action research is focused on finding solutions to a particular societal problem. Thus, it is noteworthy that each of these research strategies has distinguishing features that will be described in the following sections.

4.2.1 Quantitative research

Quantitative research is often concerned with meanings-questionnaire or surveys are commonly designed to establish how people 'see' themselves or others. Quantitative researchers can be interested in behaviour just as much as how people see things. (*Heath et al 2010*)

Quantitative research can be defined as a “research strategy that emphasizes the quantification in the analysis and collection of data” (Bryman, 2004: 19). Bryman again notes that quantitative research is more objective and focuses on imbibing the practices of natural science models (2004: 19). Unlike qualitative research, quantitative research strategy is of the position that “social reality is an external and objective reality” and that society is static and not dynamic.

4.2.2 Qualitative research

Qualitative researchers clearly use words as well as numbers. For instance, they usually offer verbal interpretation of their statistical tables. It is also not true that numbers are absent from qualitative research. Having discovered some phenomenon by qualitative means, there is every reason to see how frequently it occurs. *Source: (Hamersley 1992)*

Qualitative research methods are about exploratory studies to understand motivations and identify dimensions of problems in a society based on in-depth observations and analyses. It often focuses on how individuals and groups view and understand the world and construct meaning out of their experiences (Silverman, 2001:4). Also Bryman views qualitative research strategy as one “can be construed as a research approach that usually emphasizes words rather than quantification in the collection and analysis of data” (2004:19).

It must be noted that notwithstanding the traditional distinguishing emphasis of each of these strategies, it is not unusual these days to come across a purely qualitative work with tables and figures; and vice versa. It is in this regard that Silverman has particularly been critical of accounts of research strategies (in particular, the qualitative research) that do not acknowledge their different forms (1993 in Bryman 2004: 267).

Nonetheless, differences exist and Bryman has observed that there is ample evidence suggesting that such differences are growing and gaining more currency (2004: 19).

Qualitative and Quantitative research strategies differ again in epistemology, ontology and in how they relate to theory as the table below shows.

	Qualitative research	Quantitative research
Epistemology	Interpretivist-the emphasis is on understanding the social world by examining how the human being as an active social actor interprets the social world around him. It acknowledges that human beings are not static but dynamic	Positive and natural science model-It emphasizes on the use of the natural science model to understand the social world and the human beings therein because they are considered as objects who acted upon by objectives of natural laws.
Ontology	Constructionist-Implies that social properties are outcomes of interaction between individuals.	Objectivism- Assumes that social properties exist independent and outside of the social actors.
Relationship with theory	Inductive- Maintains the view that theory is generated out of reach.	Deductive- It maintains that, research should be carried out based on theory.

Figure 10: Table showing difference between qualitative and quantitative research

Source: Bryman (2004)

4.2.3 Action Research

Action research can involve both qualitative and quantitative data. “It can be defined as an approach in which the action researcher and a client collaborate in the diagnosis of a problem and in the development of a solution based on the diagnosis”. The orientation of an action research is therefore to find solutions to problems instead of exploring same, just to explain them. In this vein Rappaport observes that an action research “aims to contribute both to the practical concerns of people in an immediate problematic situation to the goals of social science by joint collaboration within a mutually acceptable ethical framework” (1970, cited in Sussman and Evered 1978). As a result, this type of research strategy calls for the active involvement of both the researcher and the researched or the beneficiaries in this case. This contrasts the positivist view where the client system members are seen as objects for in conducting an action research, Sussman and Evered (1978: 600) have identified the five cyclical phases:

- Diagnosing;
- Action Planning;
- Action Taking;
- Evaluating; and
- Specifying Learning

4.3 Factors which influenced my choice of research strategy

As a social science researcher, my choice of research strategy was informed by a combination of the factors discussed above. Based upon the research questions that I formulated, I decided to conduct a qualitative research. The qualitative aspect will offer me the opportunity to be flexible and get to the bottom of certain social issues. I felt that an inductive approach to theory will be most appropriate for since what I wanted to find out did not require the formulation of hypothesis and proving it or otherwise thereof. I wanted to know the extent to which the company’s CSR policies have benefited the local people from the community’s point of view. With epistemology and ontology, I have taken an interpretivist and constructionist stance because I am of the view that not only are the actors of social research different from the natural sciences (Bryman, 2004:13) but also there must be room for some level of subjectivity in social research since we deal with the behaviour of human beings and not objects. On my ontological stance, it is also my belief that social issues or issues concerning the behaviour of human beings cannot be static but they are constantly changing. This informed the way I structured my research questions in order to get the best results from the community.

4.4 Research design

Bryman (2004: 33) identifies five different types of research designs which are experimental design, cross-sectional or survey design, longitudinal design, case study design, and comparative design. My research will be based primarily on a single case study of Dosa Company, in Wadi Halfa Municipality. The aim of a case study is usually to “generate an intensive examination of a single case”, and then “engage in a theoretical analysis” in relation to this (Bryman 2004:52). Thus, in this case study we can identify two main actors: the people of Wadi Halfa and Dosa company. Yin (1994), defines a case study as “an empirical enquiry that investigates a contemporary phenomenon within its real life context, when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used. It is particularly valuable in answering who, why and how questions in management research.” The research questions presented under the research problems above seeks to identify the improvement or otherwise in the social, environmental and economic lives of the people in the Wadi Halfa municipality as a result of the citing of the mining industry in the area.

4.5 Research method

Bryman (2004: 27), defines a research method as “a technique for collecting data”; Silverman outlines four main techniques for data collection which are (1) Observation, (2) Analyzing text and documents, (3) interviews, and (4) Recording and transcribing (Silverman, 2001:11). I will rely on the use of observations and Interviews to obtain my data that will guide me to get appropriate answers for my research questions. I will be considering and discussing the sort of improvement that have taken place in the lives of the people living in that area as a result of the company being cited in the district. I would also consider the social, economic and environmental effects of the allocation of the company in the district. Similar to ethnography, the term observation is made to refer to a situation whereby the researcher is involved with watching the behaviour of the researched, paying attention to conversations among the people and also asking them questions (Bryman, 2004: 292). Document and text analyzing has to deal with taking a critical look at some relevant written materials as well as internet materials that may be available for the area of research. Interviews in qualitative research could be either unstructured or semi-structured. Malbon (1999) observes that unstructured interviews usually are conducted in the form of conversation and they come without interview schedules (cited in Bryman, 2004: 320). Meanwhile, Bryman (2004: 323) acknowledges that with semi-structured interviews, the researcher may have an interview guide and follow it to some extent. This means that semi-structured interview is also a bit flexible and makes room for the researcher to change the style of the interview if it becomes necessary. Lastly, recording and transcribing is an important part of qualitative research as it also provides the researcher with the opportunity to get every detail that is required. Qualitative researchers are “not just

interested in what people say but also the way they say it” and thus to be able to take all these details, they may need to record the interviews and later take time to analyze it. It is noteworthy that recording/taping and transcribing sometimes comes along with problems such the unwillingness of respondents to be taped or recorded as well as the malfunctioning of the tape machine (Rafael et al 1997, cited in Bryman, 2004: 331).

4.5.1 Selection of the case study

Wadi Halfa is one of the ancient and mineral resources richest communities in Sudan, but it is not among the best developed communities in Sudan. Wadi Halfa is an interesting community to consider as a case study owing to the fact that gold mining has existed in Wadi Halfa municipality for such a long period, one would expect that it would among the best developed communities in the country but this is not the case. The choice of company is obviously due to the fact that the mine in Wadi Halfa is owned by Dosa Multi Activities Company (DMAC). One thing interesting also is that, DMAC has for some time now been priding itself with being socially responsible and also making Wadi Halfa community better off than before. That is from their point of view but what about the community? Do they feel the same way? The case study will help me to find this out.

4.6 The way the research was conducted

In pursuit of giving empirically founded answers to my research questions of which factors influence the economic, social and environmental performance of a CSR committed mining company in Sudan and how the practice of CSR may improve the lives of the people in the community, I have conducted a qualitative case study. This offers me the opportunity to get a deeper understanding of development from the community’s point of view. As I indicated earlier, I have taken an interpretivist and constructionist stance instead of embracing positivistic and objective positions. According to Silverman (2001: 25), researchers who are interested in exploring people’s life, histories or every day’s behaviour must use qualitative instead of quantitative research strategy. Apart from the flexibility that the former offers, it makes room for researchers to actually appreciate the changing nature of society and the dynamic characteristics of the human behaviour. I used semi-structured interviews guided by an interview guide and the questions were mainly open-ended questions. Open-ended interviews mean that the interviewees can freely respond to my questions (Kvale, 2001: 96 cited in Tobiassen, 2007: 29). I find this approach to be appropriate, as my objective is to get more information about the perceptions of people as far as their personal development and the development of the community is concerned. I wrote down the responses of all the interviews and also recorded some of the interviews that I had with the community. The choice not to record the majority of the interviews was based on a belief that this would have made many of the interviewees

feel uneasy, and hence that the most extensive and reliable information would be obtained without recording. Interviews took from 30 minutes to 2 hours, but with the majority in the 40-50 minutes' range.

I also interviewed some of the workers of Dosa Multi Activities Company (DMAC) as well as some top management personnel. None of these interviews were recorded for reasons of the comfortability and confidentiality of the workers. In total, I interviewed about 25 people. My sampling methods were a combination of purposive and snowball. Purposive sampling is a form of non-probability sampling which is used when the researcher has a purpose for sampling those people for interview (Trochim, 2006). The aspect of snowball sampling that applies to my research is the fact I used my initial contact at the Department of Sustainable Development of DMAC to get to know, and get in touch with, other respondents who were relevant to my research. For instance, through the department, I got to meet with people who were beneficiaries of projects done by the company. Data was collected from three major places in Wadi Halfa municipality, and one in Dabba municipality. The sampling I used did not occur at a single goal, but it spread through the period of my data collection. The collection of data was carried out in a period of three months. I started with interviewing some of the management officials of the company and also gathering some relevant document for analysis of the thesis. I later identified the areas that I wanted to work with. In each area, I interviewed three people. Along the line, I made contacts with the local government officials who represent the local governing body for Wadi Halfa municipality. I also interviewed one security officer who was appointed by the central government to control the quantity of gold being extracted and report that to the head office in Khartoum. Through the analyzing process of my thesis, I also interviewed three people who are working in DMAC, but during the interviews they showed some sort of hesitation or fear to disclose some of the information's while answering my questions, and in the end they requested me to keep their statements as confidential as possible. I also interviewed one of the community leaders in Wadi Halfa community who was appointed by DMAC to act as liaison between DMAC and the community.

I also interacted with the local community in different occasions to obtain a deep understanding of their behaviour and habits, and in general to understand what they like and what they don't like in order to have a deep insight in the perception and the way of thinking of my interviewees.

During the process, I also interviewed two candidates from Daba municipality as the DMAC has an agricultural project in that municipality.

4.6.1 The validity and reliability of the research

The essence of qualitative research is to make sense of and recognize patterns among words in order to build up a meaningful picture without compromising its richness and dimensionality. Like quantitative research, the qualitative research aims to seek answers for questions of "how, where, when who and why" with a perspective to build a theory or refute an existing theory.

Unlike quantitative research which deals primarily with numerical data and their statistical interpretations under a reductionist, logical and strictly objective paradigm, qualitative research handles nonnumeric information and their phenomenological interpretation, which inextricably tie in with human senses and subjectivity. While human emotions and perspectives from both subjects and researchers are considered undesirable biases confounding results in quantitative research, the same elements are considered essential and inevitable, if not treasurable, in qualitative research as they invariable add extra dimensions and colors to enrich the corpus of findings. However, the issue of subjectivity and contextual ramifications has fueled incessant controversies regarding yardsticks for quality and trustworthiness of qualitative research results for healthcare

Reliability and validity of the thesis lies in the fact that; In this study, aspiring to identify the importance of more informal relations, it is the use of people's perceptions as the main data, which is deemed to best ensure the validity of the study. Further, the main means of striving for both reliability and validity in the study has been the gathering of many different perspectives, which can be held up against each other. Also, concretely, the assurance of the reliability of the data was sought by crosschecking factual information/stories by asking several interviewees about the same concrete incidents/affairs. A validity problem may lie in the fact that some of the interviewees were bias in expressing their perceptions. This occurred in some few places and especially with DMAC workers, as a result of fear of losing their jobs.

5.0 Empirical findings

This chapter deals with the empirical findings that are drawn from the information gathered during the field work. The findings are aligned with the research questions and organized around the objectives of the research. The field work for this research was done within a period of twelve weeks and it comprises mainly of the interviews and observations of my respondents, as well as from some documents from the organization which were analyzed. This chapter offers readers an opportunity to have a first-hand access to information gathered from my respondents.

5.1 Implementation of (DMAC)'s CSR policy

The DMAC Company, is a multinational company with a Chinese partnership, its headquarters in Khartoum-Sudan. It started its operations in 2004, after it dissolved its partnership with the Chinese company. In 2001 the company has incurred a huge loss due to poor exploration, then the company decided to operate by itself and dissolve its partnership with the Chinese company. In 2004 the company invited experts from South Africa and Greece for the purpose of exploitation. In 2006 and 2007 the company started recovering the loss and began to generate profits.

Now the company is owned by Dosa family which is composed of two brothers and a sister, each holding a percentage of share in the company (the proportion is not disclosed).

The two brothers hold the top management positions in the company.

DMAC, beside gold mining, it involves in other sectors also, like Agriculture, Logistics, Fishing, Construction, Import and Export, Shipping and Road building activities.

Before the establishment of the CSR department, CSR has always been informal in DMAC, but due to the pressure and challenges that they have faced from the community in one hand and the activist on the other hand, DMAC has established a CSR department to deal with those challenges.

The aim of the establishment of this department is to provide a formal platform to address social issues and to give the community the opportunity to deal with the company directly in terms of their social concerns. To sum it, the implementation of the company's CSR policy is now channeled through the CSR division, with much of the community involvement work being worked out through the community and social development department. The department receives complaints and requests from the local community and presents it to the company for discussion and action to be taken. It also organizes meetings with the chiefs and some of the other leaders of the various communities in order to be on the same page on their social issues. However, a good question to ask is whether these meetings are enough to address the community's social, environmental and other pressing issues? In my field, I would say that to a large

extent the answer is no for a number of reasons I observed. Most of the time, the meetings do not capture most of the people in the community and thus community participation has not been fairly represented or involved. Secondly, due to the previous encounters with the company, some being violent, the people are sometimes intimidated to voice their opinions about certain actions or inactions of the company which affects them. The people sometimes fail to attend such meetings due to the outcomes of previous meetings, which has as it were been, fruitless. What is the point in attending meetings if ‘nothing’ seems to come out of such meetings? It is simply a waste of my precious time, lamented one of the respondents who is a farmer. Another issue also is that sometimes the chiefs or traditional leaders of these communities become a mouth piece of the company instead of the people. They are unable to speak for their people, probably because the company has made their personal situations better and they would not want to offend them by speaking against them. Thus, they either become lame ducks or advocates for the companies instead of a mouth piece for the people they lead. In some cases, the company bribes the local government officials and the leaders of the community in order to over talk the members of the community and hence convince them about what the company doing is the right thing for the community (*According to a member of the community*).

One of the values of DMAC is their respect for the community. In a leaflet provided by the company which spells out these core values, the last value reads:

Our community is our responsibility

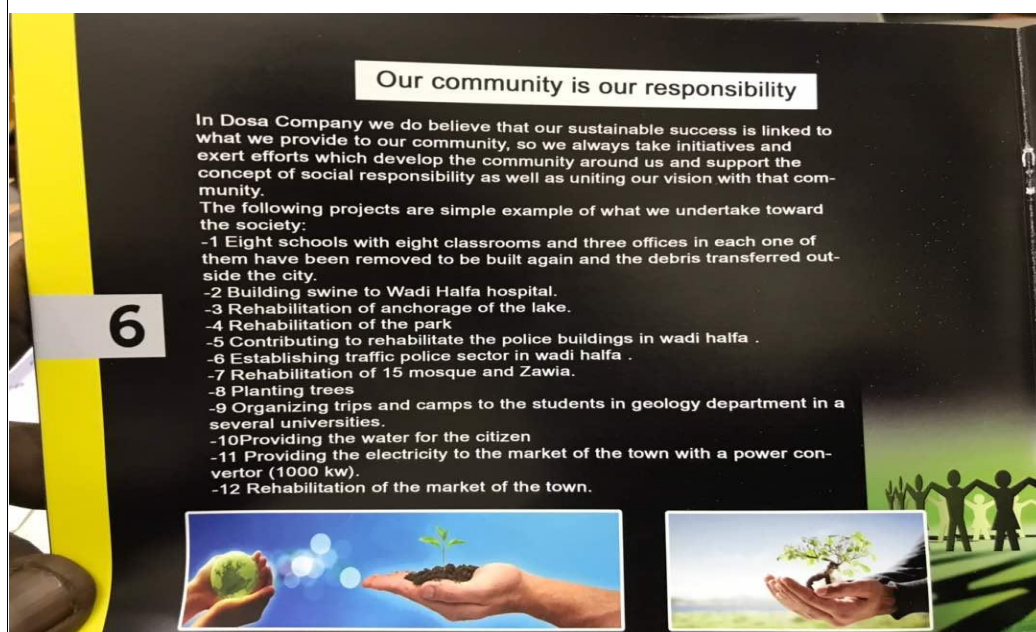
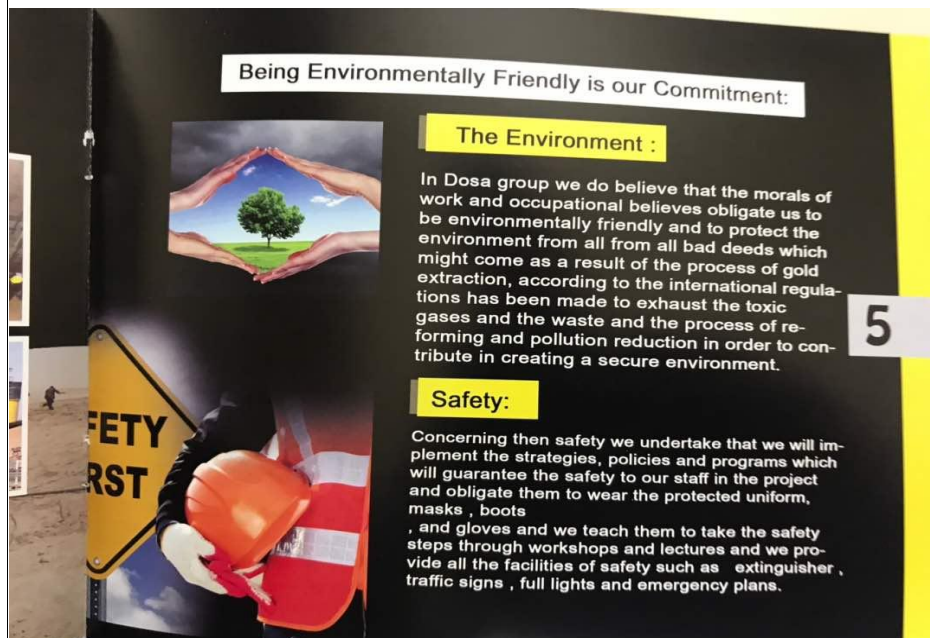


Figure:11 Leaflet spells out the core values of DMAC (Community)

In another leaflet made by the company it reads:

Being environmentally friendly is our commitment

Figure:12 Leaflet spells out the core values of DMAC (Environment)



We are committed to continually improving our processes in order to prevent pollution, minimize waste, increase our carbon efficiency and make efficient use of natural resources. We will develop innovative solutions to mitigate environmental and climate risks. (DMAC).

In order for DMAC to implement their CSR policy, the company has divided Wadi Halfa community into several sectors. The sectors are;

The students sector:

As there is lack of school books in Sudan, DMAC provides the students of Wadi Halfa with books and study materials, in addition to that DMAC organizes summer courses for higher secondary school students to prepare them for Sudan certificate exams (which improved the grades and increased the number of the students of Wadi Halfa getting into universities at the state level) *According to CSR responsible DMAC*. The company also provides Wadi Halfa students who are studying at Universities in Khartoum with accommodation and books.

The youth sector:

DMAC provides the youth of Wadi Halfa with different training placements, and offers them jobs in the company. The company also built many small football fields and rehabilitated Wadi Halfa football stadium, the company also financially supports the local football clubs, and assists them in their competitive trips or tournaments.

The women sector:

DMAC provides financial support for the women engaged in handicraft activities, the company also offers special events and activities for women.

The general community sector:

- DMAC has built eight schools with eight classrooms each
- Built swine to Wadi Halfa Hospital
- Rehabilitation of anchorage of the lake
- Rehabilitation of the park
- Contributed to rehabilitation of the police building in Wadi Halfa
- Establishing traffic police in Wadi Halfa
- Rehabilitation of 15 mosques and Zawias
- Planting trees
- Organizing trips and summer camps to geology students
- Water supply for the community
- Electricity supply for the market of Wadi Halfa
- Rehabilitation of the market of Wadi Halfa



Figure 13: Summer courses, photo of participant students (Boys) (by Haitham Sharwani-DMAC)



Figure 14: Summer courses, photo of participant students (Girls) (by Haitham Sharwani-DMAC)

5.1.1 Creating jobs by the fishing project

In their bid to draw most of the unemployed people from ‘galamsey’ businesses and as part of their social responsibility, the company is embarking on a number of income generating projects for the community. Amongst them is what they have called the fishing project, a program initiated four years ago with the aim of meeting the protein needs of the workers and the community, the fishing project is expected to develop into an industry where there will be a processing plant to process the fish for commercial purposes, and there was also an intention of opening restaurants in the municipality. The project is facilitated by the head of fishing department in the company. During my interview with beneficiaries from Wadi Halfa community, I found out that the first beneficiaries are families of different sizes ranging between 4 members and 10 members. For all of them, their families are totally dependent on the father and even though they have other sources of income i.e. vegetable farms, etc., their income is still insufficient to feed and sustain that size of family. The other side is that, they have the benefit of working with their families on their farms especially their wives and the children when they return from school. Most of their children were in primary and junior high school.

How the fishing project runs?

The company hires local fishers and provides them with nets and boats, and the deal is that; the beneficiary receives one third of the total quantity, and they are free whether to sell their share to the company, or sell it in the local market. As a part of the CSR policy of the company, the company offers slightly higher prices than the market price.

There are some challenges faced by the beneficiaries according to two of the beneficiaries; that the process takes long time from putting the net and taking it out of the water, it takes days and sometimes weeks "*according to them*". The second thing is that; there a huge amount of risk involved in that process, according to the beneficiaries; *The River Nile is full of crocodiles and other predators and every time they got to the River Nile, they always fear that, they are not going to return home safe.*

5.1.2 The agricultural project

The agricultural project is another initiative by the company that I inspected and observed during my field work. The agricultural project is a project located in Daba municipality which is far away from the DMAC mine concession. The project was initiated for the purpose of compensating to the environmental hazards that caused by the company in Wadi Halfa municipality. The project is intended to grow Alpha Alpha for the consumption in the northern state. Alpha Alpha is crop used to feed animals. The argument of the CSR responsible of the company was that; the project is meant

for providing the northern state livestock with the necessary food needed and also to prevent desertification in the area. The company felt that the people of the northern state should rely upon local agricultural productions in feeding their animals rather than depending on other states of the country. The project is quite an interesting one to actually assess so far as the company's CSR project is concerned. The project is located hundreds of kilometers away from Wadi Halfa, and the beneficiaries of this project are not the people of Wadi Halfa, and the second thing is that, the project is not relevant as far as CSR of the company is concerned, the reason is that, the environmental damage caused by the mines cannot be compensated by project hundreds of kilometers far away from where the damage actually happened and hence it is not of a value for the local community of Wadi Halfa.

5.1.3 Challenges of the agricultural project

One cannot overlook the challenges faced by the agricultural project. The project is 6000 Acres, and located in the middle of the desert of northern Sudan State, it is 22 kilometers west from the nearest city of Daba.

During my field work, I paid a visit to the project accompanied with Australian agricultural expert who was sent in a mission to check the suitability of the soil for growing Alpha Alpha. During the visit, I observed that there is no road to lead to the project, we used navigation system to get to the project location, I also observed that the facilities of the project are still under construction.

The most important thing was that, (according to the Australian expert Mr. David), the soil is not suitable for agricultural project and that was due to several reasons:

- The water is far deep in the ground, and they have to dig at least 250 meters deep into the ground to reach the water
- The water is salty and that will block the pipes of the pivots
- There are a lot of rocks which will make the area to be cultivated relatively small
- They also have to plant special type of trees around the project area to be used as wind breakers.



Figure 15: Photo by Ahmed taken by Emad Eisa cell phone camera (July 2018)

Testing the soil for crop suitability and water sweetness by experts from Globe Agriculture Company (DMAC agricultural project)

5.1.4 The hospital project

The company is intending to establish a modern hospital that will specialize in treating cancer and other resident diseases. The plan is to situate the hospital in Khartoum the capital of Sudan. The intention behind this project is to treat the people affected by the environmental problems that are created by the gold mining companies. The capacity of the hospital is 120 beds, major and minor surgery operation theatres, the hospital will also use the modern technology in diagnosis and treatment. (DMAC 2018).

The hospital will provide 250 job opportunities to variety of people, like doctors, nurses, medical technologists and other unskilled jobs. The company will also provide free medical care for its workers and at a discounted rate for the people of Wadi Halfa.

Although the beneficiaries acknowledge that this is a good initiative from the company, they would have wished that the company had made contacts with them before implementing it. There are a few challenges that these beneficiaries face.

One of the main ones includes the location of the hospital, the hospital is intended to be located in Khartoum which is approximately 1000 kilometers away from Wadi Halfa, the people of Wadi Halfa are poor and they cannot afford to travel from Wadi Halfa to Khartoum in order to be diagnosed and treated. In spite of the fact that the company will quote special offer for the people residing around the gold mines, but still it is going to be costly for them to afford the journey to Khartoum, the fact is that, almost all the people who live around the gold mines are poor people.

According to participant who refused his name to be mentioned; the company is trying to please the government rather than the people affected by the hazard, and the company is launching projects that benefit the company most rather than for the benefit of the group.

5.1.5 Malaria control in Wadi Halfa municipality

In their attempts to address some of the social problems of Wadi Halfa municipality, DMAC Company has embarked on a malaria control program known as the Wadi Halfa Control Program (WHMCP). The initiative came up as a result of complaints from the local people about the high incidence of malaria in the area which was also strongly supported by the then CEO of the company, Hafiz Dosa (Sharwani, CSR responsible 2018). After subsequent deliberation by the company, it decided to embark on a malaria-prevention Program in order to reduce the malaria cases in the area. According to the Program 's manager, Mr. H.Sharwani, The Program aimed to achieve a 30% reduction in malaria incidence in the Wadi Halfa municipality. Statistics from hospitals and clinics in Wadi Halfa show that in 2015, over three thousand cases of malaria were recorded out of the total of twelve thousand cases reported at the various hospitals. The Program was an integrated Program which adopted various methods of malaria control and prevention. One of the documents prepared prior to the implementation of the WHMCP shows the following as the methods used in the Program.

- Vector Control
- Indoor Residual Spraying (IRS)
- Distribution of Insecticide Treated Nets (ITN's)
- Larvicide of breeding areas (water bodies) # Environmental Management (screening)
- Surveillance, monitoring & research # Information, Education, Communication(community)
- Life style changes # Advocate use of Repellants (night shift workers)
- Early, effective diagnosis & treatment

Source: (Mr. H. Sharwani, CSR responsible 2018).

According to the CSR responsible Mr. Sharwani, the whole Program pivoted on the internal residual Program and this he explained as the spraying of walls in every

home in the Wadi Halfa municipality, with the aim of destroying the mosquitoes that transmit the malaria parasite. The efficiency of the insecticide is 5 months and thus the IRS is done every 6 months. They were about on the third one at the time of my field work.

The IRS Program uses a more labour intensive method and the company takes the opportunity as way to provide temporary employment for the people in the municipality. However, how sustainable are these jobs and what should these people be doing once there is no job for them to do? Again, one difficulty about the provision of employment is the difficulty in identifying the true residents of Wadi Halfa municipality. The people may come from outside the community and take up some of these jobs thereby denying the residents of Wadi Halfa community from enjoying such social benefits from the company.

The WHMCP Program 's manager asserts that the total cost of the WHMCP is borne totally by the DMAC Company. The company had spent about USD 400.000. (H.Sharwani, CSR responsible 2018). Apart from the fact that this is such an enormous amount to be spent on the Program, which brings in mind the issue of sustainability of the Program. Eradicating malaria is as important for the community as it is for the company, most of the methods being used in the Program may not be sustainable. It is very costly to do the IRS which does not even kill all the mosquitoes but it reduces the number of the malaria parasites and it is feared that this Program may not take stay long enough for the better of the community especially when the mine is closed in the future. However, it is worth noting that the WHMCP Program has been nominated as a principal recipient of a global fund for the next five years. Since the Program has been successful, the fund is to help extend its implementation to 40 districts in Sudan within the next five years with the aim of reducing the incidence of malaria in the country. According to Mr. Sharwani, the Program takes off; this initiative takes off in the 2nd quarter of 2016; however, it is worth noting that the Program cannot be implemented in urban areas but only pre-urban areas (H. Sharwani, CSR responsible 2018).

The implementation of the Program did not occur without some challenges. One of the major challenges was the unwillingness of some of the residents to allow the sprayers into their private properties especially their bedrooms. In Sudan, it is unusual for strangers to enter into people's bedrooms as it is considered uncultured and disrespectful and also for fear of strangers stealing some valuable items. However, through prior education of the residents and reassurance that the sprayers have been

screened by the police, some of these incidences were minimal. The other challenge was that the residents complained about the strong odor from the spray which stayed for well over two weeks. Staying in our own rooms now became inconvenient and we had to stay outside most of the time, lamented one of the residents. Staying outside their room during night time meant being exposed to the mosquitoes that are flying outside. Their other complaint is also that the spray destroyed their beautiful paints on the wall, which meant that they had to spend some money to repaint the walls (H. Sharwani, CSR responsible 2018).

5.1.6 Other CSR projects

Apart from the above mentioned projects, the company has also been conducting some projects worth mentioning. I just got to know about them in my interaction with the manager of the department of CSR. According to Mr. Sharwani, as a way of restoring the environment, the company is turning some of its pits into fish farms which can generate employment and income for the community. They also absorb a large number of national service personnel providing them with better allowance. They also provide waste ore or granite for community developments such as the building of churches, palaces, schools, etc. as was informed by Mr. Sharwani, occasionally, the company in collaboration with the community leaders organizes clean-up exercises which cost is fully borne by the company. Occasional clean up exercises are good but it is not enough to rid the city of the filth that has engulfed it. Most of the workers I interviewed seem to appreciate the wages and working conditions provided by the company. For the senior staff (general managers, managers, superintendents), they receive scholarships for their children all the way from kindergarten through tertiary education. Some of the senior and junior also receive sponsorship to read specific courses in some of the country's tertiary institutions including Universities. Some of the benefits such as free education for children, study abroad, do not extend to the junior officers. Thus, there is a general perception created among the workers which makes the junior staff feel less important and alienated.

However, each worker receives free medical care, life insurance, free electricity, water and recreational facilities (interview, Mr. Ziada, July 2018). The inhabitants of the Wadi Halfa community enjoy the provision of these utilities without having to worry about paying the bills for them. Like I indicated earlier, this community is among the most impacted communities, thus, they experience most of the environmental, economic and social hazards of the company. Obviously, the company takes 'so much' from them and so the provision of the free utilities is like a token of compensation and should not be taken as such a big deal lamented one of the people in the community. The water being provided as free is contaminated with chemicals, their land is destroyed and their air is heavily polluted. Why should they smile just because of free utilities? After all, when the mine closes down, there will be no one to provide them

with these utilities for free and worst of all they would have to cope with and adapt living with bad environmental, economic and social hazards created by the mining activities after the town becomes a ‘ghost town’.

5.2 Corporate Community Collaboration

The concept of corporate community collaboration is not very evident in the Wadi Halfa municipality. Although the company does engage the community in various meetings, it seems as if their opinions do not matter that much to the company. The formulation of CSR policy is mainly done by the company with no or little consultation with the people who are supposed to benefit from such policies. For instance, the hospital and agricultural project initiatives were all planned out by the company. One of the beneficiaries complains that they wished the company had consulted them before coming up with those projects to seek their consent and opinions about how to make it more meaning than it already is. Since they are poor, they do not have any choice but to accept any little help that the company wants to offer them. The workers of DMAC also commented that certain CSR projects were done without prior consultation with them, they were only informed about when the project was about to take off. For all the people I interviewed in the communities (with the exception of members of the Community leaders), CSR policies and projects are formulated without their input. The company only informs them when the project is about to take off.

Meetings organized between the company and the community is not always open to every person or adult in the community. In order to be able to have effective communication with the company, the community must form a Community Consultative Committee (CCC) which includes chiefs, local authorities (assembly men and women) and only 3 people to represent the community. The committee usually meets with the representatives of the company at specific periods of each month to discuss issues bothering the community.

5.2.1 Affected Communities, Traditional Authorities and the Public

Owing to the fact that traditional rulers have quite an enormous impact on the development of the local communities, it is interesting to take a look at the role that traditional authorities in mining communities have played in bringing about sustainable development. The traditional authorities of most Sudanese ethnic groups are organized in a hierarchy of paramount chiefs, sub chiefs and caretakers. Mostly traditional rulers enjoy deep-rooted respect from their people. They are seen as the custodians of customs and traditions, and at a village level as the community leaders settling disputes and externally representing the interests of the community (various interviews). Further, chiefs in Sudan by tradition are the ‘custodians of the land’, who must in principle approve the granting of mining concessions. There are also strong indications that the chief and his ‘elders’, in many instances, does not have as strong will to criticize the mining companies as their traditional position as defendants of the overall community interest would merit. Also the following testimony from the state

appointed environment officer confirms an overall trend that the interests of chiefs in demanding responsible behavior from DMAC have been compromised: “The chiefs only show their teeth when there has been pressure from the community. Otherwise they are in bed with the company. when we did this letter from the Municipal Assembly, they had to support it, because otherwise they would be seen by the communities as accomplices of the company, but generally they normally keep quiet. At Ramadan Eid there are gifts and other nice things will be distributed to the loyal chiefs” (Sahnoon Saleh, Logistics officer 2018). Turning to look at resources, interviews with community people and indeed the observations done in Dalgo indicated a very large educational gap between community people and the DMAC officials with whom the former negotiate both their monetary compensations for land, potential takeover of new or reclaimed land, and DMAC initiation of social development projects. Not surprisingly, the low educational level, often entailing that people are not aware of their legal rights, comes together with a low holding of financial resources, contributing to a situation of scarce possibilities for challenging companies in court. The low level of education in communities also contributes to the fact identified by several interviewees that when mining comes to a new area, people may not understand its implications, and therefore may not use their legal rights to raise demands with the companies in time (Sahnoon Saleh, Logistics officer, 2018).

5.3 Effect of the mining activities

Mining activities is known to have detrimental effects on the environment and on the people living in the community. In my data collection on the field, I discovered that the situation was not as different as what I have read in the books. However, another value of the company is spelt out in the company’s brochure are spelt in the following words:

Being environmentally friendly is our commitment

and

Our community is our responsibility

This section will try to unravel the possible effects of mining activities on the people in Wadi Halfa municipality.

5.3.1 Impact on the environment

Most of the people I interviewed in the various communities agreed that the activities of the mining company have indeed destroyed their environment. Although many of them acknowledge the fact that the company has environmental responsibilities towards them, they claim that this responsibility has been neglected to a large extent so far as they are concerned. Their land is taken from them because they happened to be on concession land and by the time they may be done using the land, it is no longer

‘useful’ as it would have lost if not all, most of its nutrient content. They have to buy expensive chemical fertilizers before they can cultivate their crops.

The situation is no better as far as their water bodies are concerned. “Our streams which serve as the main source of drinking water for us have been heavily polluted with chemicals and they tell us not to drink it because it is poisonous. “One of the participants shouted” However, we are left with very little choice because the two boreholes constructed by DMAC is no longer functioning, and right now that is one of the major difficulties facing Wadi Halfa municipality. Although, the company claims that they have improved their mining technology and thus the new one emits very little pollutants into the air, my interviewees shared a different opinion about this trend. According to most of the people I interviewed, the air is still polluted and they suffer various lung and skin diseases as a result. However, the inhabitants acknowledge that the quantity of air pollutant is not as bad as it used to be but it has improved only a little. They still have to contend with living with dust which results from the blasting of the rocks which contain the gold. And there is no way of escape from these actions, the inhabitants are left to the mercy of the company, only hoping that their building will not be hit and collapse on them and they will not be infected from inhalation of these dust particles. But of course, over the long period the effects of the air pollution manifests in various diseases such as extensive coughing and some ‘strange’ diseases as the local people choose to call it. Another major issue is that the smoke from the chimneys of the company destroys their crops and prevents them from growing properly. A farmer complained bitterly of how his trees became stunted and thus he had to destroy them and grow other crops. According to him, with the smoke from those chimneys, you cannot plant certain crops.

The inhabitants of Wadi Halfa also complained about the high rate of mosquito breeding in the area due to the location of one of the mines pit which has been converted to a fish farm. Although, the area enjoys the mosquito spraying process, but that does not prevent mosquitoes from breeding because the process is carried out in the manner to please the people and not for the purpose of Malaria eradication. If we assume that the process destroys and reduces their ability to transmit malaria to them and thus their existence in large numbers in the community is sometimes a huge nuisance to them.

5.3.2 Economic impact of DMAC activities in Wadi Halfa

The economic impact of mining activities in Wadi Halfa municipality cannot be overemphasized. According to the planning officer of Wadi Halfa Municipality, who represents the local authority in Wadi Halfa, most of the land in the municipality has been bought as part of the concession for their mining activities. The people are only allowed to stay on it because they have not started mining that particular place yet. They have every right to eject people and remove everything on any land that is part of their concession. Technically speaking, for most of the inhabitants of the Wadi Halfa

municipality, they are occupying illegal lands according to the municipality because the lands were leased to mining companies some years ago. “Probably these people are not aware of such a lease”, he says. Most of the people in the Wadi Halfa municipality are farmers and what this means is that once farm lands are taken away for mining purposes, the people lose their source of livelihood. Two farmers in Wadi Halfa complain that the company took away their farm lands and gave them small amount of money as compensation. According to them some other people lost large plantations of palm trees without any compensation from the company. These actions were taken without any prior notice to them and without warning; they just destroyed their farm and took away the land. How does the company expect such people to survive, having taken away their source of livelihood? The easy way out is for them to end up in ‘galamsey’ business. The bitter part is that, such business is not as rosy as their farming, but it is very risky and dangerous. It is risky in the sense that they get arrested during confrontations or receive gun shots from the company. It also affects their health since they handle the deadly chemicals with their bare hands and not wearing any protective clothing. Some of them develop burulli ulcer and other kinds of chronic diseases.

Apart from those who get their land totally taken from them with little compensation, there are those who get low yield from their farm due to the limited amount of land coupled with pollutants affecting the land, water and the air. “Even though we buy chemical fertilizers at high prices, we still do not get as much yield as we expect because of the activities of the mine which pollutes the air and the land” (Mohammed Ali farmer, interview, July 2018).

When asked whether they feel better off with the allocation of the mine in the community, most of the people in the villages answered in the negative. They ask how they can be better off when their farms have been taken away without any sustainable compensation, alternative sources of livelihood and most of the youth in the villages are unemployed. Only a few of the youth in the village are employed to work for the company. “As far as we are concerned, poverty levels have increased and not decreased” (interview, inhabitants of Dalgo, July 2018). “DMAC has taken us for granted, they have taken our land and destroyed them, left us unemployed, don’t provide employment for our youth and delivers empty promises to us. They are concerned with our welfare, only concerned about profits at the expense of our future. They have made us worse off” (Taha Ahmed, Idris Saleh personal communication, July 2018).

However, economic activities in terms of buying and selling in the community are very vibrant. A lot of small scale enterprises are doing well in the municipality because they are subsidiaries companies of the mining company.

DMAC company does not operate in isolation. It operates in a society where people actually have as their home. This suggests that in their day-to-day activities, they will come into contact with the community; whether such contacts are friendly or

confrontational. Unfortunately, most of these contacts have been confrontational instead of a friendly one. Many people have lost trust in the company's promises to make the community better off than they met it. According to them, they have not lived up to the expectation of improving their economic, social and cultural lives and the environment is also in no good shape (resident Wadi Halfa, Ibrahim Younis, personal communication, July 2018). This perception has sometimes caused some demonstrations against the company by the youth of the community claiming the better life that they seem to have promised. At other times, people in the 'galamsey' business have been mercilessly dealt with by the company, thereby going a long way to weaken the already fragile relationship between the community and the company. Many of them have been arrested, beaten or even shot at for trespassing on the company's assets.

There is also a general perception that the leaders of the community, especially the traditional rulers have been 'bought' by the company, making them toothless dogs and powerless. In other words, the company has greased the palm of the leaders with money and other benefits, making their lives far better than the ordinary people and this situation makes it difficult if not impossible to stand up against them. "When your leadership has been bought and broken, how do you fight for a better life from the people who have bought your leaders" (interview, resident and worker, Omer Ramadan, July 2018)?

The existence of the mines in Wadi Halfa and Dalgo have drawn people from all over the country and beyond to settle in the community. Intercultural co-existence has the benefit of the indigenous people getting to experience and learn about other cultures, but it also has enormous detrimental effects on the people. It has the likelihood to cause the indigenous people to lose their identity and their cultural heritage as a people. In Sudan, culture is something that is very much cherished and each ethnic group is identified by the maintenance of their cultural values. An important question to answer will be, does the Wadi Halfa municipality still have their cultural identity. From various interviews, the generalized perception is that what the Wadi Halfa municipality has is a 'diluted culture'. Even though there may be nothing wrong with having a diluted culture, it makes it difficult for a person to know which culture to identify the town with.

One thing about having a lot of people coming and going out of the town is the upsurge of social vices in the community. Everybody comes with the aim of making money because they know that gold miners have money and sometimes they want to make money through whatever means possible. This is manifested in the increase in social vices such as prostitution, stealing and armed robbery. So the question is, how can DMAC claim to make the community better when there are traces of increased social vices?

5.4 Controlling the environmental impact of mining in Wadi Halfa municipality:

In their effort to improve upon their environmental standards of mining, DMAC has signed on to some international environmental tools aimed at keeping them in check of improving the quality of the environment. These international tools are the UN Global Compact and the ISO 14001. Launched by former UN Secretary General Kofi Annan as a network in 2000, the Global Compact is held to be “the world’s largest voluntary corporate citizenship initiative” (UN, 2007:4). With its office within the UN, the Global Compact sets out “ten universally accepted principles” derived mainly from and around the following themes; the area of human rights, labour, the environment and anti-corruption, that participating businesses commit themselves to aligning their operations and strategies with (UN, 2007: 6). Whereas there is no external monitoring of performance, participating companies are required to report annually on their progress towards implementing the principles, while third parties can bring ‘allegations of systematic or egregious abuses’ to the Global Compact Office, who may then provide assistance and guidance for the company to rectify the matter, and in the very last instance delist the company as a participant from the Global Compact website (UN, 2008). The other working document that the company uses to ensure environmental sustainability is the ISO 14001. Originally developed by the International Organization for Standardization; a network of national standards institutes – the ISO 14001 awards participating companies an ‘ISO 14001 certification’, specifies the requirements for an Environmental Management System whose implementation in a company is audited every three years. Thus, the ISO does not set actual pollution abatement standards, but commit participating companies to ‘continuous improvement’ and evaluates the extent to which the Environmental Management System is utilized (Utting, 2000:5). The head of the environmental department of the company (Sharwani) claims that “being a signatory to the ISO 14001 is a very important environmental point for the company and thus we try our possible best to ensure continuous improvement”. Thus, although the company conducts an Environmental Impact Assessment (EIA) before undertaking any mining contract or activity, the main working document for the company is the Environmental Management Plan (EMP) (Haitham Sharwani, CSR responsible, July 2018). The issue here is that, so far as the company is concerned, EIA is used to identify the possible environmental issues that may be identified as a result of the mining activities, after which an EMP is prepared based on the issues identified from the EIA. In Sudan, the Environmental Impact Assessment is done by the Environmental Protection Agency (EPA). This institution is head quartered in Khartoum and there is not a single office of the EPA in the Wadi Halfa municipality. The EIA for the company is supposed to be done before any mining operation takes place, but this has not always been the case with the company due to the absence of an office of the EPA in Wadi Halfa municipality, they have to come from Khartoum, about 11 hours’ drive from the Wadi Halfa municipality. This means that sometimes, an EMP is done when EIA has not been completed for a particular operation. In Wadi Halfa, EMPs are reviewed every

3 years and a report of the review is submitted to the EPA for approval. This procedure allows the EPA to assess the progress of the company so far as the EMP is concerned. The process of EMP revolves around four quadrants; plan, implement, check and review or act. The process involved in each is explained below:

-Plan:

- *Identify the environmental issue of the operation activities, including diversion of rivers, removal of homes among other

- *Assess the impact of all these issues on the environment and the community

- *Determine your objectives and record all this in the EMP

-Implement:

- *Gather the resources needed to ensure environmental sustainability

- *Assign specific roles to each of these human and capital resources

- *Conduct training and awareness Programs for the people (this must include internal and external communication)

- *Control the operation of the company to avoid unnecessary destruction

- *Make available all emergency measures in case of such destruction

-Check:

- *Measure and monitor the impact of the operation on rivers, land, biodiversity, etc.

- *Ensure conformity to preventive and corrective actions already stated

- *Control records and conduct internal as well as external auditing of the process

-Review:

- *In the end the company must review all the processes and submit a report to the EPA for approval

- *The review is done every three years for particular operations.

5.4.1 Reclamation of land

The EPA requires that when a plant is closed down, the company must embark on a reclamation Program. In this regard, the government expects the company to commit a given percentage of their assets and profits towards the purchase of security in order to appropriately reclaim affected lands just in case the company decided to take a 'French leave'. Reclamation could come in form of reforestation, turning of company pits into useful dams or fish ponds etc.

5.5 Challenges on the field

I encountered a few challenges when conducting the field work. The time frame for collecting data was constrained. Some of the respondents were in other parts of the regions and some were even in other region. The inadequate time and resources made it very difficult to reach some of these people. I did not know where to locate the respondents from the village and thus needed assistance from the company to locate them. Although, they helped me enormously in this respect, their presence posed a threat to getting accurate information from the respondents. During one of my interviews with one of the workers, the presence of the personnel manager for of DMAC prevented the respondent from being open about the challenges they face in the organization. such a challenge will have a bearing on the findings of the research. However, in a related issue, I was able to communicate with other workers without much interference from DMAC officials. I would have wished to witness a CCC meeting to actually know what goes on during their meetings. This was not possible due to the time constraint. Lastly, some of the respondents from the villages were unwilling to grant an interview because they felt that nothing ‘good’ comes out of such meetings. One of them actually requested for money if I wanted him grant an interview. To him, such meetings are only fruitless because it does not bring money into their pockets.

6.0 Conclusions and Recommendations

6.1 Conclusions

In an attempt to reconcile the achievement of social goals with business opportunity and competitiveness, Corporate Social Responsibility, as a voluntary incorporation of social and environmental concerns into corporate practices has established as an international guide largely supported and applauded by corporate executives, NGOs, governments, pressure groups, business academics and international and local development agencies alike. This is manifested in the fact that corporate bodies as well as international development agencies set up CSR-related departments or policies to facilitate its implementation. As an example, the UN has accepted and contributed to the establishment of the Global Compact arrangement as a norm for many corporate bodies (UN, 2008). However, not everybody hails the concept of CSR as some critics question the fundamentals and basis of CSR. Their argument is that businesses should focus on their core objective of profit-making and that any sway from this objective is unjustifiable and inappropriate.

Corporate social responsibility presents itself as a very useful tool for the implementation of sustainable development if the policies are well applied. Defining sustainable development as one which ensures that the developmental needs of present generations are taken care without compromising the ability of the future generation's

to provide for their needs, one cannot overlook the importance of the corporate world in ensuring this. It is important for companies and especially mining companies to have the developmental interest of their local communities at heart both during their stay in the company and even after they have abandoned the site. They need to ensure that their activities in the communities affect the local people in the most minimum way possible.

This thesis attempts to find answers to questions posed by many natural-resource rich communities like Wadi Halfa municipality. Does the existence of the mine make the community better off as the company claims? In theory, the mining companies seem to be contributing something back to the society but the worry here is that these projects and policies could not be said to be enough to ensure the sustainability and sustainable development of the people living in the community. Most of the time, the company formulates its own development and environmental policies and then informs the people about their intentions and the need for the community to support them. The leaders who are supposed to be the mouth piece of these people have been 'bought' into the circles of the company and thus they have become lame ducks. The community is left with little choice but to accept whatever that the company would decide on.

On the other hand, the negative impact of mining operations on the environment, economy and culture of the local community is quite enormous. As a farming community, they lose their land to make way for the operations of the company, streams and other source of drinking water are heavily polluted with chemicals, their air is no better and the culture is diluted due to the influx of many foreign people who are in one way connected to the activities of the company. Jobs that are created as alternative jobs are still mine-dependent and therefore one cannot be sure of its long term existence should the mine close down. All this in addition to the poor consideration that is paid to the women sector, and their absence in both the mining jobs as well as the jobs in the other projects is very clear. In short the people in mining communities cannot claim to be as better off as the company would like to have the world believe. I would summarize the plight of these poor mining communities in the words of Tarig Osman.

"DMAC has taken us for granted. They have taken so much from us but given us very little in return" (interview, researcher Tarig Osman 10, July 2018).

6.2Recommendations:

Corporate Social Responsibility, or CSR, is a movement within the business world that advocates a larger ethical and social role for corporations. Boards of director's structure corporations to maximize profits for their shareholders, and as a result, according to advocates of CSR, they frequently exploit or neglect the larger community and the natural environment. People who make CSR guidelines design them to amend this problem and to transform large companies into productive corporate citizens who contribute in positive ways to the community. Therefore, it is strongly recommended that CSR should be practiced in all of the following areas:

Social

CSR emphasizes the responsibility of corporations to return some of their wealth and success to the communities that support them. Poverty afflicts many of the developing countries where multinational corporations employ people in their factories. Problems also exist in the communities in North America where many corporations have their corporate headquarters. Given their wealth, social influence and contacts within government and business, corporations can make a difference for people in need by contributing to efforts in; for example: education, employment training, prison diversion programs, drug counseling and small business startups. The theory of CSR argues that the companies themselves will benefit from these activities by helping to create stable and thriving communities that benefit everyone.

Environmental

The natural environment is the source of all wealth, and those making the wealth have been badly abusing it for centuries. Vast forests fall for timber, cattle ranching and slash and burn agriculture. Human activities pollute rivers and air and increasing temperatures eat away at the polar ice caps. Companies that engage in CSR recognize that their wealth and success are at least partly to blame for this damage, and contribute money, time and knowledge to alternatives such as renewable energy, conservation and non-polluting alternatives

Employees

The employees who work for a company are the ones who directly produce its wealth. In some companies, collective bargaining agreements protect their interests, while in others they do not. CSR recommends that companies fairly remunerate employees for the efforts that they put into the success of the company. Equitable packages for employees include fair pay, benefits, paid vacations and pension plans. Just as importantly, workplaces should be healthy and safe places that don't subject workers to unregulated toxins or dangerous conditions.

Customers

Corporations have a responsibility to provide their customers with well made, reasonably priced products that perform as advertised. Corporations that engage in price fixing or monopolistic practices attempt to unfairly limit the choices of the buying public, and CSR discourages these practices. In many cases, they are also illegal. A corporation that conforms to the dictates of CSR attempts to earn its profits by providing useful products and services to a community, rather than by maximizing its profits at the expense of exploited consumers.

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Appendices

Appendix A: The Ten Principles of the United Nations Global Compact

“The Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment, and anti-corruption:

Human Rights Principle

1: Businesses should support and respect the protection of internationally proclaimed human rights; and

2: make sure that they are not complicit in human rights abuses.

Labour Standards

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment Principles

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption Principles

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

” Source: UN (2008)

Appendix B: Interview Guide

- 1.** Are you aware that the company has a social responsibility towards this community? If yes, how did you know it?
- 2.** Do you know the objectives of their CSR policies?
- 3.** To what degree has AGA been fulfilling this social responsibility?
- 4.** Have you noticed some specific things that the company has done for the community?
- 5.** To what extent are you satisfied with what they have done?
- 6.** Are they involving you in the planning and implementation of these projects? (their CSR policies).
- 7.** If yes, how are they involving you?
- 8.** Is the specific project beneficial to you personally? If yes, how?
- 9.** Is it beneficial to the whole community? If yes, how?
- 10.** Do you think the project will continue even after the mine has been abandoned?
- 11.** If no, why not?
- 12.** If yes, why and how can it be sustained?
- 13.** To what degree has the establishment of the mine reduced poverty in Wadi Halfa municipality?
- 14.** Does the operation of the mine affect your occupation? How?
- 15.** Does the operation of the mine affect your health? How?
- 16.** Does it affect the environment? How?
- 17.** How does it affect your social and cultural life?

Appendix C: List of interviewees

Haitham Sharwani	CSR Responsible DMAC
Khaled Soleman	Beneficiary, Summer Courses "Boys" Wadi Halfa
Taha Mahmoud	Beneficiary, Summer Courses "Boys" Wadi Halfa
Merghani Abdulraziq	Beneficiary, Summer Courses "Boys" Wadi Halfa
Yasir Ibrahim	Beneficiary, Summer Courses "Boys" Wadi Halfa
Babikir Yousif	Beneficiary, Summer Courses "Boys" Wadi Halfa
Taha Gibril	Beneficiary, Summer Courses "Boys" Wadi Halfa
Tarig Osman	Beneficiary, Summer Courses "Boys" Wadi Halfa
Ikhlas Ibrahim	Beneficiary, Summer Courses "Girls" Wadi Halfa
Muna Saleh	Beneficiary, Summer Courses "Girls" Wadi Halfa
Zuhal Abdulrahman	Beneficiary, Summer Courses "Girls" Wadi Halfa
Muzdalifa Alkhalifa	Beneficiary, Summer Courses "Girls" Wadi Halfa
Mansour Hamid	Beneficiary, Fishing project, Wadi Halfa
Yahya Almahi	Beneficiary, Fishing project, Wadi Halfa
Khair assid Rizgalla	Beneficiary, Fishing project, Wadi Halfa
Sahnoon Saleh	Worker, DMAC, Wadi Halfa
Abdulmiem Mohammed	Worker, DMAC, Wadi Halfa
Bahr addin Altahir	Worker DMAC, Wadi Halfa
Fadlalla Azain	Farmer, Dabba
Nasir Salheen	Farmer, Dabba
Halima Osman	Resident, Wadi Halfa
Meetings	
Radi Hussain Khartoum	Environmental Protection Officer, Ministry of Environment,
Amin Ziada	Projects Manager, DMAC, Khartoum
Dafaallah Awad	Community Leader, Wadi Halfa